

SONY®

**Broadcast & Audio-Video
General Catalogue
Winter/Spring 2006**

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Broadcast & Audio-Video General Catalogue

Winter/Spring 2006

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HDC-X300 HD Multi-purpose Camera

HDC-X300K

Features

*Superb picture quality with three 1/2-inch type 1.5-mega pixel HD CCDs *Low smear level of -120 dB *High signal-to-noise ratio of 54 dB *Progressive scan mode (29.97/25/23.976PsF) *Interlaced scan mode (59.94i/50i) *Compact and lightweight design - only 1.2 kg (2 lb 10 oz) *Low minimum illumination of 0.003 lx (+48 dB gain, 64 frames slow shutter) *HD-SDI interface *D-sub 15-pin interface *Camera remote control capability *Trigger function *Optical ND filter and electronic CC function *HDC-X300K is supplied with focus servo lens



Supplied Accessories

Operation manual (1)
AC adaptor (1)
AC cable (1)
Tally unit (1)

Optional Accessories

HFU-X310 Interface unit
HFBK-HD1 HD-SDI Option
HFBK-SD1 SDI Option
HFBK-XG1 XGA Option
HFBK-TS1 iLink (HDV) Option
RM-B150 Remote Control Unit
RM-B750 Remote Control Unit
RCP-750 Remote Control Panel (Joystick type)
RCP-751 Remote Control Panel (Dial control type)
MSU-700A Master Setup Unit
MSU-750 Master Setup Unit
VCT-U14 Tripod Adaptor



Specifications

General

Power requirements:
DC 12 V
Power consumption:
17 W
Operating temperature:
Camera: -10 to +45 °C (14 to 113 °F)
AC adaptor: 0 to 40 °C (32 to 104 °F)
Storage temperature:
-20 to +60 °C (-4 to +140 °F)
Operating humidity:
25 to 85% (relative humidity)
Mass:
1.2 kg (2 lb 10 oz)
Dimensions:
95 x 95 x 160 mm (3 3/4 x 3 3/4 x 6 3/8 inches) without projection

Camera

Pickup device:
3-chip 1/2-inch type 1.5-mega pixel CCD
Effective picture elements (H x V):
1440 x 1080
Optical system:
F1.4 prism
Built-in filters:
1:Clear, 2:1/4ND, 3:1/16 ND, 4:1/64ND
Lens mount:
Sony 1/2-inch bayonet mount

Signal system:

59.94i/23.976PsF/29.97PsF selectable at 59.94i mode
50i/25PsF selectable at 50i mode
Sync system:
Internal and external (3 state/VBS (BB))
Minimum illumination:
0.003 lx (F1.4, +48 dB gain, 64-frame accumulation)
Sensitivity (2000 lx, 89.9% reflectance):
F10 (typical)
Gain selection:
-3, 0, 3, 6, 9, 12, 18, 24, 30, 36, 42, 48 dB
Shutter speed:
1/60 (50i mode), 1/100, 1/250, 1/500, 1/1000, 1/2000 s
Clear scan:
50 to 200 Hz (50i mode)
60 to 200 Hz (59.94i mode)
Slow shutter:
2, 3, 4, 5, 6, 7, 8, 16, 32, 64 frame
Smear level:
-120 dB (typical)
S/N ratio:
54 dB (typical)
Registration:
0.02 or less (all zones, without lens)
Geometric distortion:
Below measurable level (without lens)
Modulation depth at 20 MHz:
45% (typical)

Signal input

Genlock video:
BNC x1, 1.0 Vp-p, 75 Ω

Signal outputs

HD SDI:
BNC x1, 0.8 Vp-p +/-10%, 75 Ω

Video:

D-sub 15-pin

Tally:

Mini-jack

Other inputs/outputs

Trigger:
BNC x1
Lens:
14-pin
Remote:
8-pin
DC input:
DC jack

Eco-info

Lead-free solder is used for soldering.
Halogenated flame retardants are not used in the printed wiring boards.

HDC-X310 HD Multipurpose camera with Fibre interface

HDC-X310K

Features

Features are similar to HDC-X300. HD-SDI Interface is replaced by a long distance capable monomode fibre interface allowing up to 1Km connection with a simple fibre network cable. HDC-X310K is supplied with 19X autofocus Lens.

Supplied Accessories

Operation manual (1)
AC adaptor (1)
AC cable (1)
Tally unit (1)

Optional Accessories

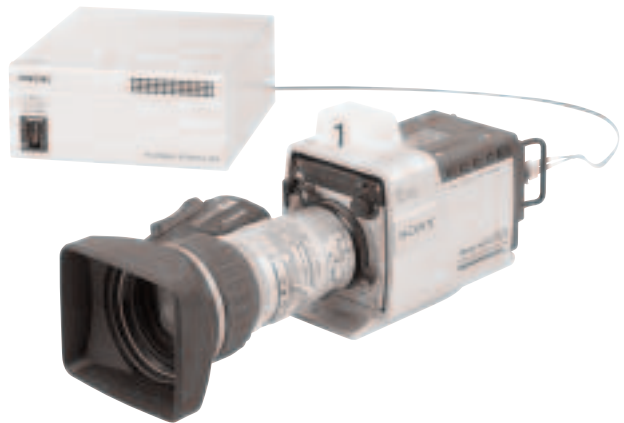
RM-B150 Remote Control Unit
RM-B750 Remote Control Unit
RCP-750 Remote Control Panel (Joystick type)
RCP-751 Remote Control Panel (Dial control type)
MSU-700A Master Setup Unit
MSU-750 Master Setup Unit
VCT-U14 Tripod Adaptor
HFU-X310 Interface unit
HFBK-HD1 HD-SDI Option
HFBK-SD1 SDI Option
HFBK-XG1 XGA Option
HFBK-TS1 iLink (HDV) Option

Specifications

General

Power requirements:
DC 12 V
Power consumption:
17 W
Operating temperature:
Camera: -10 to +45 °C (14 to 113 °F)
AC adaptor: 0 to 40 °C (32 to 104 °F)
Storage temperature:
-20 to +60 °C (-4 to +140 °F)
Operating humidity:
25 to 85% (relative humidity)
Mass:
1.2 kg (2 lb 10 oz)
Dimensions:
95 x 95 x 160 mm (3 3/4 x 3 3/4 x 6 3/8 inches) without projection
Camera
Pickup device:
3-chip 1/2-inch type 1.5-mega pixel CCD
Effective picture elements (H x V):
1440 x 1080
Optical system:
F1.4 prism
Built-in filters:
1:Clear, 2:1/4ND, 3:1/16 ND, 4:1/64ND
Lens mount:
Sony 1/2-inch bayonet mount
Signal system:
59.94i/23.976PsF/29.97PsF selectable at 59.94i mode
50i/25PsF selectable at 50i mode
Sync system:
Internal and external (3 state/VBS (BB))

Minimum illumination:
0.003 lx (F1.4, +48 dB gain,
64-frame accumulation)
Sensitivity (2000 lx, 89.9%
reflectance):
F10 (typical)
Gain selection:
-3, 0, 3, 6, 9, 12, 18, 24, 30, 36,
42, 48 dB
Shutter speed:
1/60 (50i mode), 1/100, 1/250,
1/500, 1/1000, 1/2000 s
Clear scan:
50 to 200 Hz (50i mode)
60 to 200 Hz (59.94i mode)
Slow shutter:
2, 3, 4, 5, 6, 7, 8, 16, 32, 64 frame
Smear level:
-120 dB (typical)
S/N ratio:
54 dB (typical)
Registration:
0.02 or less (all zones, without lens)
Geometric distortion:
Below measurable level (without lens)
Modulation depth at 20 MHz:
45% (typical)
Signal input
Genlock video:
BNC x1, 1.0 Vp-p, 75 Ω



Signal outputs

Fibre Interface Monomode, LC Duplex type
Video:
D-sub 15-pin
Tally:
Mini-jack

Other inputs/outputs

Trigger:
BNC x1
Lens:
14-pin
Remote:
8-pin
DC input:
DC jack

Eco-info

Lead-free solder is used for soldering.
Halogenated flame retardants are not used in the printed wiring boards.

HDC-1000 Multi-format HD Camera

Features

- *Newly developed three 2/3-inch type 2.2-megapixel HD progressive CCD
- *High-sensitivity of F10
- *Excellent signal-to-noise ratio of 54 dB
- *A wide variety of capturing modes - 1080/50i, 1080/60i, 1080/24P, 1080/25P, 1080/30P, 720/50P, 720/60P
- *Industry-first 14-bit A/D conversion
- *State-of-the-art DSP LSI
- *Ergonomic design
- *Optical fibre digital transmission
- *Memory Stick storage of camera setup parameters
- *Servo-controlled ND and CC filters

Supplied Accessories

- Operation manual (1)
- Front cover (1)
- Number plate for side panel (2)
- Belt for cable clamp (2)
- Angle adjustment fitting (2)

Optional Accessories

- HDCU-1000 Camera Control Unit
- HDCU-1500 Camera Control Unit
- HDTX-100 HD Triax Adaptor (Fischer type)
- MSU-900 Master Setup Unit
- MSU-950 Master Setup Unit
- CNU-700 Camera Command Network Unit
- HDVF-700A 7-inch Type HD B/W CRT Viewfinder
- HDVF-C730W Multi-format HD Colour LCD Viewfinder
- HDVF-9900 9-inch Type HD Colour CRT Viewfinder
- BKP-7911 Script Holder

Specifications

General

Mass

Approx. 20 kg (44 lb 9 oz, without VF and lens)

Operating temperature

-20 to +45 °C (-4 to +113 °F)

Camera

Pickup device

3-CCD 2/3-inch type 16:9

Effective picture elements (H x V)

1920 x 1080

Spectrum system

F1.4 prism system

Built-in filters

1: Clear, 2: 1/4ND, 3: 1/8ND, 4: 1/16ND, 5: 1/64ND

A: CROSS, B: 3200K, C: 4300K, D: 6300K, E: 8000K

Servo filter control

Yes

Lens mount

Sony hanger mount

Sensitivity

F10 at 2000 lx (3200K, 89.9% reflectance)

Minimum illumination

10 lx (F1.4, +12 dB gain up)

Signal-to-noise ratio

54 dB (typical)

Horizontal resolution

1000 TV lines

Dynamic range (1080/60i mode)

600%

Registration

Within 0.02% (all zones, without lens)

Shutter speed selection

1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 s (1080/60i mode), 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s (1080/50i mode)

Modulation depth

45% or more horizontally (800 TV lines at center, 27.5 MHz, with typical lens)

Input connectors

Audio in (CH-1)

XLR-3-31 type (1, female), mic or line selectable

Audio in (CH-2)

XLR-3-31 type (1, female), AES/EBU or mic or line selectable

Return control

6-pin (1)

DC in

XLR-4-pin type (1)

Output connectors

Test out

BNC type (1), 1.0 Vp-p, 75Ω

HD SDI out

BNC type (2)

DC out

4-pin (1), 10.5 to 17 V max. 1.5 A

AC utility out

Yes (Output connector differs by region.)

Input/output connectors

CCU

Optical fibre connector

Lens

36-pin

Viewfinder

D-sub 25-pin

Remote

8-pin

Prompter

BNC type (1), 1.0 Vp-p, 75Ω

Tracker

10-pin: Tracker R/T, R/G Tally, unregulated 12 V

Crane

12-pin, Y/Pb/Pr, Trunk data I/O, Serial Data

Intercom

XLR-5-pin (2, female)



HDC-1000 rear panel



HDC-1500 Multi-format HD Camera

Features

*Newly developed three 2/3-inch type 2.2-megapixel HD progressive CCD *High-sensitivity of F10 *Excellent signal-to-noise ratio of 54 dB *A wide variety of capturing modes - 1080/50i, 1080/60i, 1080/24P, 1080/25P, 1080/30P, 720/50P, 720/60P *Industry-first 14-bit A/D conversion *State-of-the-art DSP LSI
 *Ergonomic design *Compact and lightweight: approx. 4.5 kg (9 lb 14 oz) *Optical fibre digital transmission
 *Versatile interfaces: two HD-SDI outputs, one digitally down-converted SD-SDI output *Memory Stick storage of camera setup parameters *Servo-controlled ND and CC filters

Supplied Accessories

Operation manual (1)
 Lens cap (1)
 Label for assignable switch (1)

Optional Accessories

HDCU-1000 Camera Control Unit
 HDCU-1500 Camera Control Unit
 HDVF-20A 2-inch Type HD B/W CRT Viewfinder
 HDLA-1500 Large Lens Adaptor
 HDVF-C30W Multi-format HD Colour LCD Viewfinder
 HDVF-C730W LCD Colour Viewfinder
 MSU-900 Master Setup Unit
 MSU-950 Master Setup Unit
 CNU-700 Camera Command Network Unit
 CAC-6 Return Video Selector
 CAC-12 Camera Microphone Holder
 VCT-14 Tripod Adaptor
 HDTX100 HD Triax Adaptor (Fischer type)



HDC-1500 rear panel

Specifications

General

Mass

Approx. 4.5 kg (9 lb 14 oz, without VF and lens)

Operating temperature

-20 to +45 °C (-4 to +113 °F)

Camera

Pickup device

3-CCD 2/3-inch type 16:9

Effective picture elements (H x V)

1920 x 1080

Spectrum system

F1.4 prism system

Built-in filters

1: Clear, 2: 1/4ND, 3: 1/8ND, 4: 1/16ND, 5: 1/64ND

A: CROSS, B: 3200K, C: 4300K, D: 6300K, E: 8000K

Servo filter control

Yes

Lens mount

Sony bayonet mount

Sensitivity

F10 at 2000 lx (3200K, 89.9% reflectance)

Minimum illumination

10 lx (F1.4, +12 dB gain up)

Signal-to-noise ratio

54 dB (typical)

Horizontal resolution

1000 TV lines

Dynamic range (1080/60i mode)

600%

Registration

Within 0.02% (all zones, without lens)

Shutter speed selection

1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 s (1080/60i mode), 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s (1080/50i mode)

Modulation depth

45% or more horizontally (800 TV lines at center, 27.5 MHz, with typical lens)

Input connectors

Audio in (CH-1)

XLR-3-31 type (1, female), mic or line selectable

Audio in (CH-2)

XLR-3-31 type (1, female), AES/EBU or mic or line selectable

Mic in (front)

XLR-3-31 type (1, female)

Return control

6-pin (1)

DC in

XLR-4-pin type (1)

Output connectors

Test out

BNC type (1), 1.0 Vp-p, 75Ω

HD SDI out

BNC type (2)

Earphone out

Mini-jack (1), 8Ω

DC out

4-pin (1), 10.5 to 17 V max. 1.5 A

Input/output connectors

CCU

Optical fibre connector

Lens

12-pin

Viewfinder

20-pin

Remote

8-pin

Prompter

BNC type (1), 1.0 Vp-p, 75 Ω

Tracker

10-pin: Tracker R/T, R/G Tally, unregulated 12 V

Crane

12-pin, Y/Pb/Pr, Trunk data I/O, Serial Data

Intercom

XLR-5-pin (2, female)

HDC-1550 Multi-format HD Camera (triax type)

Features

*Newly developed three 2/3-inch type 2.2-megapixel HD progressive CCD *High-sensitivity of F10 *Excellent signal-to-noise ratio of 54 dB *A wide variety of capturing modes - 1080/50i, 1080/24P, 1080/25P, 1080/30P, 1080/60P, 720/50P, 720/60P *Industry-first 14-bit A/D conversion *State-of-the-art DSP LSI *Ergonomic design *Built-in triax interface. Note that HDFX-100 triax to fibre convertor must be used with HDCU-1000/1500 *Memory Stick storage of camera setup parameters *Servo-controlled ND and CC filters

Supplied Accessories

Operation manual (1)
Front cover (1)
Number plate for side panel (2)
Belt for cable clamp (2)
Angle adjustment fitting (2)

Optional Accessories

HDCU1000 Camera Control Unit
HDCU1500 Camera Control Unit
HDTX100 HD Triax Adaptor (Fischer type)
HDFX-100 Triax adaptor (Fischer type)
MSU-900 Master Setup Unit
MSU-950 Master Setup Unit
CNU-700 Camera Command Network Unit
HDVF-C730W Multi-format HD Colour LCD Viewfinder



HDC-1550 rear panel

Specifications

General

Mass
Approx. 4.5 kg (9 lb 14 oz,
without VF and lens)
Operating temperature
-20 to +45 °C (-4 to +113 °F)

Camera

Pickup device
3-CCD 2/3-inch type 16:9
Effective picture elements (H x V)
1920 x 1080
Spectrum system
F1.4 prism system
Built-in filters
1: Clear, 2: 1/4ND, 3: 1/8ND, 4: 1/16ND,
5: 1/64ND
A: CROSS, B: 3200K, C: 4300K, D: 6300K,
E: 8000K
Servo filter control
Yes
Lens mount
Sony bayonet mount
Sensitivity
F10 at 2000 lx (3200K, 89.9% reflectance)
Minimum illumination
10 lx (F1.4, +12 dB gain up)
Signal-to-noise ratio
54 dB (typical)

Horizontal resolution
1000 TV lines
Dynamic range (1080/60i mode)
600%
Registration
Within 0.02% (all zones, without lens)
Shutter speed selection
1/100, 1/125, 1/250, 1/500, 1/1000,
1/2000 s (1080/60i mode), 1/60, 1/125,
1/250, 1/500, 1/1000, 1/2000 s
(1080/50i mode)
Modulation depth
45% or more horizontally (800 TV lines
at center, 27.5 MHz, with typical lens)

Input connectors

Audio in (CH-1)
XLR-3-31 type (1, female),
mic or line selectable
Audio in (CH-2)
XLR-3-31 type (1, female), AES/EBU or
mic or line selectable
Mic in (front)
XLR-3-31 type (1, female)
Return control
6-pin (1)
DC in
XLR-4-pin type (1)

Output connectors

Test out
BNC type (1), 1.0 Vp-p, 75Ω
HD SDI out
BNC type (2)
Earphone out
Mini-jack (1), 8Ω
DC out
4-pin (1), 10.5 to 17 V max. 1.5 A

Input/output connectors

CCU
Optical fibre connector
Lens
12-pin
Viewfinder
20-pin
Remote
8-pin
Tracker
10-pin: Tracker R/T, R/G Tally,
unregulated 12 V
Crane
12-pin, Y/Pb/Pr, Trunk data I/O, Serial Data
Intercom
XLR-5-pin (2, female)

HDCU-1000 Camera Control Unit

Features

*Eight HD-SDI or SD-SDI outputs *Up to eight additional HD-SDI or SD-SDI outputs (with two optional HKCU-1005 boards) *Four sets of HD-SDI, SD-SDI, and analogue composite return video inputs *Built-in down-converted analogue composite output *Two-channel teleprompter input *Built-in Ethernet interface (100Base-T) *Utility power output capability for use with the HDC-1000 or HDLA-1500 *Two-channel data trunk lines (RS-422A or RS-232C) for easy data transmission *AES/EBU digital audio output *Two-channel microphone output (two XLR connectors)

Optional Accessories

HKCU-1001 SD Analogue Interface Unit
HKCU-1003 Multi Interface Unit
HKCU-1005 HD/SD Expansion Unit
RCP-700 Remote Control Panel (Joystick Type)
RCP-701 Remote Control Panel (Dial Control Type)
RCP-750 Remote Control Panel (Joystick type)
RCP-751 Remote Control Panel (Dial control type)
MSU-900 Master Setup Unit
MSU-950 Master Setup Unit
RM-B150 Remote Control Unit
RM-B750 Remote Control Unit
CCA-5 Cables 8-pin/8-pin Remote Control Cable

Specifications

General

Power requirements
AC 100/120/220 to 240 V, 50/60 Hz
Maximum current consumption
5.4 A (at 100 V AC, entire system active)
Operating temperature
+5 to +40 °C (+41 to +104 °F)
Mass
Approx. 16 kg (35 lb 4 oz)
Dimensions (W x H x D)
424 x 133 x 410 mm
(16 3/4 x 5 1/4 x 16 1/4 inches)

HD inputs/outputs

HD SDI output (*1)
BNC type (4), SMPTE 292M, 1080/50i, 60i, 30P, 25P, 24P, 720/60P, 50P
HD SDI/SD SDI selectable
HD monitor output (*2)
BNC type (4), SMPTE 292M, 1080/50i, 60i, 30P, 25P, 24P, 720/60P, 50P
HD SDI/SD SDI selectable, character on/off selectable
HD SDI return input
BNC type (4), SMPTE 292M, 1080/50i, 60i, 30P, 25P, 24P, 720/60P, 50P

SD inputs/outputs

SDI output (*1)
BNC type (4), SMPTE 259M, Serial digital component
HD SDI/SD SDI selectable

Applicable Models

HDC-1500 Multi-format HD Camera
HDC-1000 Multi-format HD Camera

SDI monitor output (*2)
BNC type (4), SMPTE 259M, Serial digital component, 480/576-lines
HD SDI/SD SDI selectable, character on/off selectable
Analogue composite monitor output
BNC type (1), character on/off selectable
SDI return input
BNC type (4), SMPTE 259M, Serial digital component
VBS return input
BNC type (4), NTSC/PAL
Sync
Reference input
BNC type (1, with loop-through), HD tri-level sync or SD black burst
Sync output
BNC type (1), HD tri-level sync or SD sync
Intercom/Tally/PGM
Intercom PD & ENG
D-sub 25-pin (1), 4W/RTS/CC selectable
PGM1/PGM2
0/-20 dBu selectable
R-Tally/G-Tally
24 V power in/make contact
Audio
MIC1/MIC2 output
XLR-3-31 type (2, female), 0/-20 dBu selectable
Digital audio output (AES/EBU)
BNC type (1), AES/EBU format, 20-bit/48 kHz
Embedded audio
Embedded audio to HD SDI/SD SDI

Prompter

Prompter in
BNC type (2, with loop-through), Analogue, NTSC/PAL/HD-Y

Others

RCP/MSU/CNU interface
8-pin (1), Sony Camera Command Network Protocol (for entire camera system control)
Ethernet
RJ-45 (1), 10BASE-T/100BASE-TX
Mic remote
D-sub 15-pin
WF mode
4-pin (2), Stair step (for SD composite Waveform monitor)
WF control
D-sub 15-pin (1), GPI (for SDI component WF control)
System expansion I/O
D-sub 15-pin (1), GPI (for system control with external GPI interface)
Trunk line
D-sub 9-pin (1), RS-232C (remote line for CHU equipment), 12-pin (round type connector), RS-232C/422 (remote line for CHU equipment)
Camera
Optical fibre cable interface
SMPTE 304M based optical fibre connector (1), 1.5 gb/s optical fibre digital transmission, SMPTE 292 M

(*1) HD SDI output and SD SDI output share the same connector. (*2) HD monitor output and SD monitor output share the same connector.



HDCU-1000 rear panel

HDCU-1500 Camera Control Unit

Features

*High power supply capability allowing HDC-1000 camera or HDC-1500/HDLA-1500 operation *Three HD-SDI or SD-SDI outputs *Up to eight additional HD-SDI or SD-SDI outputs (requires two optional HKCU-1005 boards)
 *Three HD-SDI, SD-SDI, or analogue composite return video inputs *Built-in down-converted analogue composite output *RM-B750 Remote Control Unit attach capability on the front panel *One channel teleprompter input
 Built-in Ethernet interface (100Base-T) *Two-channel data trunk line(RS-422A/RS-232C) for easy data transmission
 *Two-channel microphone output (two XLR connectors)

Optional Accessories

HKCU-1001 SD Analogue Interface Unit
 HKCU-1003 Multi Interface Unit
 HKCU-1005 HD/SD Expansion Unit
 RCP-700 Remote Control Panel
 (Joystick Type)
 RCP-701 Remote Control Panel
 (Dial Control Type)
 RCP-750 Remote Control Panel
 (Joystick type)
 RCP-751 Remote Control Panel
 (Dial control type)
 MSU-900 Master Setup Unit
 MSU-950 Master Setup Unit
 RM-B150 Remote Control Unit
 RM-B750 Remote Control Unit
 CCA-5 Cables 8-pin/8-pin Remote Control
 Cable

Specifications

General

Power requirements
 AC 100 to 240 V, 50/60 Hz
 Maximum current consumption
 4 A (at 100 V AC, entire system active)
 Operating temperature
 -10 to +40 °C (+14 to +104 °F)
 Mass
 Approx. 6.2 kg (13 lb 10 oz)
 Dimensions (W x H x D)
 200 x 127 x 410 mm
 (8 x 5 1/9 x 16 1/4 inches)

HD inputs/outputs

HD SDI output (*1)
 BNC type (2), SMPTE 292M, 1080/50i,
 60i, 30P, 25P, 24P, 720/60P, 50P
 HD SDI/SDI selectable
 HD monitor output (*2)
 BNC type (1), SMPTE 292M, 1080/50i,
 60i, 30P, 25P, 24P, 720/60P, 50P
 HD SDI/SD SDI selectable
 HD SDI return input
 BNC type (3), SMPTE 292M, 1080/50i,
 60i, 30P, 25P, 24P, 720/60P, 50P
 HD SDI/SD SDI/VBS selectable

SD inputs/outputs

SDI output (*1)
 BNC type (2), SMPTE 259M,
 Serial digital component
 HD SDI/SD SDI selectable

Applicable Models

HDC-1500 Multi-format HD Camera
 HDC-1000 Multi-format HD Camera

SDI monitor output (*2)
 BNC type (1), SMPTE 259M,
 Serial digital component, 480/576-lines
 HD SDI/SD SDI selectable
 Analogue composite monitor output
 BNC type (1), Monitor/Sync selectable,
 character on/off selectable
 SDI return input
 BNC type (3), SMPTE 259M,
 Serial digital component
 HD SDI/SD SDI/VBS selectable
 VBS return input
 BNC type (3), NTSC/PAL
 HD SDI/SD SDI/VBS selectable

Sync

Reference input
 BNC type (1, with loop-through),
 HD tri-level sync or SD black burst
 Sync output
 BNC type (1), HD tri-level sync or
 SD sync Sync/Monitor selectable

Intercom/Tally/PGM

Intercom PD & ENG
 D-sub 25-pin (1), 4W/RTS/CC selectable
 PGM1/PGM2 0/-20 dBu selectable
 R-Tally/G-Tally 24 V power in/make contact

Audio

MIC1/MIC2 output
 XLR-3-31 type (2, female),
 0/-20 dBu selectable
 Digital audio output (AES/EBU)
 —
 Embedded audio
 Embedded audio to HD SDI/SD SDI



HDCU-1500 rear panel

Prompter

Prompter in
 BNC type (1, with loop-through),
 Analogue, NTSC/PAL/HD-Y

Others

RCP/MSU/CNU interface
 8-pin (1), Sony Camera Command Network
 Protocol (for entire camera system control)
 Ethernet
 RJ-45 (1), 10BASE-T/100BASE-TX
 Mic remote
 D-sub 15-pin
 WF mode
 4-pin (1), Stair step
 (for SD composite Waveform monitor)
 WF control
 D-sub 15-pin (1), GPI
 (for SDI component WF control)
 WF control/mic remote selectable
 System expansion I/O
 —
 Trunk line
 12-pin (round type connector),
 RS-232C/422 (remote line for CHU
 equipment)
Camera
 Optical fibre cable interface
 SMPTE 304M based optical fibre
 connector (1), 1.5 gb/s optical fibre digital
 transmission, SMPTE 292 M

(*1) HD SDI output and SD SDI output share the same connector. (*2) HD monitor output and SD monitor output share the same connector.

HDLA-1500 Large Lens Adaptor (CE)

Features

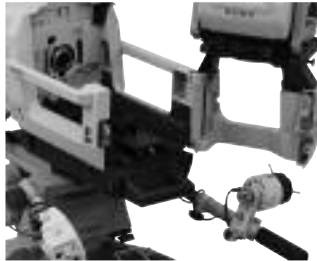
- *Totally new interlocking mechanism
- *Low-profile design

Optional Accessories

HDTX-100 HD Triax Adaptor (Fischer type) (1)

Applicable Models

HDC-1500 Multi-format HD Camera
HDC-1550 Multi-format HD Camera



HDLA-1500 rear panel

HDLA-1505 Large Lens Adaptor (CE)

Features

- *For applications which do not require use of the HDVF-700A viewfinder
- *Allows operation with the HDVF-C730W colour LCD viewfinder
- *Totally new interlocking mechanism
- *Low-profile design

Optional Accessories

HDTX-100 HD Triax Adaptor (Fischer type) (1)

Applicable Models

HDC-1500 Multi-format HD Camera
HDC-1550 Multi-format HD Camera

HDFX-100 HD Triax Adaptor (Fischer type)

Features

- *Converts optical fibre transmission to the widely used triax transmission system
- *Long distance transmission - up to 1400 m (4500 feet) with a 14.5 mm dia. triax cable or 1000 m (3200 feet) with a 13.2 mm dia. triax cable

Optional Accessories

HDTX-100 HD Triax Adaptor (Fischer type)
HDCU-1000 Camera Control Unit
HDCU-1500 Camera Control Unit



HDTX-100 HD Triax Adaptor (Fischer type)

Features

- *Converts optical fibre transmission to the widely used triax transmission system
- *Long distance transmission - up to 1400 m (4500 feet) with a 14.5 mm dia. triax cable or 1000 m (3200 feet) with a 13.2 mm dia. triax cable

Applicable Models

HDFX-100 HD Triax Adaptor (Fischer type)
HDLA-1500 Large Lens Adaptor (CE)
HDC-1000 Multi-format HD Camera
HDC-1500 Multi-format HD Camera



SONY

Production Cameras

BVP-E30P	12
BVP-E30WSP	13
DXC-D50PH	14
DXC-D50PK	16
DXC-D50PL	18
DXC-D50WSPL	20

BVP-E30P 3-chip CCD Portable Color Camera

Features

*Portable studio/OB/EFP camera *Three-chip Power HAD EX CCD imager for superb picture quality *Advanced digital signal processing and 14-bit A/D conversion *Switchable progressive(*) and interlace modes *Excellent signal-to-noise ratio of 65 dB and remarkably low smear level of -145 dB (typical) *High sensitivity of F11 at 2000 lx *Digital 3-D white shading *Cross color suppression function *Low key saturation function *Adaptive highlight control (Auto knee mode) *Knee saturation control *Multi-matrix function *Enhanced vertical detail (Non-additive mix) *Adaptive detail control *Triple skin tone detail control *Electronic soft focus *Full compatibility with current Sony Camera Control Units for seamless integration into Sony BVP-900P Series, and BVP-E10 Series camera systems using existing Sony MSUs, CNUs and RCPs *Compatible with Sony Wireless Camera System WLL-CA55 and WLL-RX55 *Wideband component triax transmission system *Auto tracing white balance *Assignable switches *Memory Stick system for storage/recall of parameters *Menu knob *Adjustable shoulder pad

(*)25PsF



Supplied Accessories

Operational manual (1)
CD-ROM Operation manual (1)
Label for assignable switch (1)

Optional Accessories

CA-590P Camera Adaptor
WLL-CA55 Wireless Camera Transmitter (CER)
CA-905F Large Lens Adaptor (Fischer Type)
CCU-790P Camera Control Unit
CCU-590P Portable Camera Control Unit
RM-B750 Remote Control Unit
RM-B150 Remote Control Unit
RCP-750 Remote Control Panel (Joystick type)
RCP-751 Remote Control Panel (Dial control type)
RCP-700 Remote Control Panel (Joystick Type)
RCP-701 Remote Control Panel (Dial Control Type)
CNU-700 Camera Command Network Unit
VCS-700 Video Selector
MSU-900 Master Setup Unit
MSU-950 Master Setup Unit
MSA-A "Memory Stick" IC Memory Media
VCT-14 Tripod Adaptor
AC-550CE AC Adaptor
BVF-55CE 5-inch Type B/W Viewfinder (CCIR)
BVF-10CE 1.5-inch Type B/W CRT Viewfinder (CCIR)

Specifications

General

Power consumption:
13 W
Operating temperature:
-20 °C to + 45 °C (-4 °F to +113 °F)
Storage temperature:
-20 °C to + 60 °C (-4 °F to +140 °F)

Dimensions (W x H x D):

125 x 285 x 291 mm (5 x 11 1/4 x 11 1/2 inches)

Mass:

Approx. 2.5 kg (5 lb 8 oz) (not including viewfinder)

Camera

A/D conversion:

14 bits

Optical system:

F 1.4 prism

Image device:

3-chip 2/3-inch type Power HAD CCD

Total picture elements (H x V):

1038 x 1188

Smear level (typical):

-145 dB

Scan format:

50i, 25PsF

Build in filters:

1: CLEAR, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND

Horizontal resolution (center):

900 TV Lines

Modulation depth (center):

80%

Vertical resolution:

480 TV lines/530 TV lines (with EVS)

S/N ratio (typical):

65 dB
F 11 at 2000 lx
(3200K 89.9% reflectance)

Gain selection:

-3, 0, +3, +6, +9, +12, +18, +24, +30, +36, +42 dB

Set-up memory card:

Memory Stick

Shutter speed:

1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s

Clear scan:

1/25(*) to 1/6000 s

Interface

Input connector:

Microphone: XLR 3-pin, -60 dBu

Output connector:

Test out: BNC type, 1.0 Vp-p, 75 Ω, unbalanced

Others:

Lens: 12-pin
View finder: 20-pin
Digital interface: 68-pin
Analog interface: 68-pin
Lens mount: Special bayonet mount (B4)

Eco-info

Lead-free solder is used for soldering.
Halogenated flame retardants are not used in the cabinets and the printed wiring boards.

(*)1/25-1/50 are on PsF mode.

BVP-E30WSP 3-chip CCD Portable Color Camera

Features

*Portable studio/OB/EFP camera *Three-chip Power HAD EX CCD imager for superb picture quality *Advanced digital signal processing and 14-bit A/D conversion *Switchable progressive(*) and interlace modes *Excellent signal-to-noise ratio of 65 dB and remarkably low smear level of -145 dB (typical) *High sensitivity of F11 at 2000 lx *Digital 3-D white shading *Cross color suppression function *Low key saturation function *Adaptive highlight control (Auto knee mode) *Knee saturation control *Multi-matrix function *Enhanced vertical detail (Non-additive mix) *Adaptive detail control *Triple skin tone detail control *Electronic soft focus *Full compatibility with current Sony Camera Control Units for seamless integration into Sony BVP-900P Series, and BVP-E10 Series camera systems using existing Sony MSUs, CNUs and RCPs *Compatible with Sony Wireless Camera System WLL-CA55 and WLL-RX55 *Wideband component triax transmission system *CC filter- electronic and optical *Auto tracing white balance *Assignable switches *Memory Stick system for storage/recall of parameters *Menu knob *Adjustable shoulder pad

(*)25PsF



Supplied Accessories

Operational manual (1)
CD-ROM Operation manual (1)
Label for assignable switch (1)

Optional Accessories

CA-590P Camera Adaptor
WLL-CA55 Wireless Camera Transmitter (CER)
CA-905F Large Lens Adaptor (Fischer Type)
CCU-790P Camera Control Unit
CCU-590P Portable Camera Control Unit
RM-B750 Remote Control Unit
RM-B150 Remote Control Unit
RCP-750 Remote Control Panel (Joystick type)
RCP-751 Remote Control Panel (Dial control type)
RCP-700 Remote Control Panel (Joystick Type)
RCP-701 Remote Control Panel (Dial Control Type)
CNU-700 Camera Command Network Unit
VCS-700 Video Selector
MSU-900 Master Setup Unit
MSU-950 Master Setup Unit
MSA-A "Memory Stick" IC Memory Media
VCT-14 Tripod Adaptor
AC-550CE AC Adaptor
BVF-55CE 5-inch Type B/W Viewfinder (CCIR)
BVF-20WCE 2-inch Type 16:9 B/W Viewfinder

Specifications

General

Power consumption:
13 W
Operating temperature:
-20 °C to + 45 °C (-4 °F to +113 °F)
Storage temperature:
-20 °C to + 60 °C (-4 °F to +140 °F)

Dimensions (W x H x D):

125 x 285 x 291 mm (5 x 11 1/4 x 11 1/2 inches)

Mass:

Approx. 2.5 kg (5 lb 8 oz) (not including viewfinder)

Camera

A/D conversion:

14 bits

Optical system:

F 1.4 prism

Image device:

3-chip 2/3-inch type Power HAD CCD

Total picture elements (H x V):

1038 x 1188

Smear level (typical):

-145 dB

Scan format:

50i, 25PsF

Build in filters:

1: CLEAR, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND

A: CROSS, B: 3200K, C: 4300K, D: 6300K

Horizontal resolution (center):

700 TV Lines

Modulation depth (center):

80% (16:9)/60% (4:3)

Vertical resolution:

480 TV lines/530 TV lines (with EVS)

S/N ratio (typical):

65 dB

Sensitivity (typical):

F 11 at 2000 lx
(3200K 89.9% reflectance)

Gain selection:

-3, 0, +3, +6, +9, +12, +18, +24, +30, +36, +42 dB

Set-up memory card:

Memory Stick

Shutter speed:

1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s

Clear scan:

1/25(*) to 1/6000 s

Interface

Input connector:

Microphone: XLR 3-pin, -60 dBu

Output connector:

Test out: BNC type, 1.0 Vp-p, 75 Ω, unbalanced

Others:

Lens: 12-pin

View finder: 20-pin

Digital interface: 68-pin

Analog interface: 68-pin

Lens mount: Special bayonet mount (B4)

Eco-info

Lead-free solder is used for soldering.
Halogenated flame retardants are not used in the cabinets and the printed wiring boards.

(*)1/25-1/50 are on PsF mode.

DXC-D50PH 3-chip CCD Portable Color Camera

Features

*Compact and lightweight: 2.2 kg (4 lb 13 oz) for camera head only *Three 2/3-inch type Power HAD CCDs offer low smear level characteristics, high sensitivity and high S/N ratio (63 dB), high horizontal resolution (920 TV lines) *Hyper Gain (36 dB) *12-bit AD converter and DSP (Digital Signal Processing) *Knee Saturation process for faithful color reproduction even in highlight area *Adaptive Highlight Control realize optimum contrast balance *Skin-Tone Detail function with auto detection of active area *Horizontal Detail Frequency Control *Low Key Saturation function *Cross-Color Suppression *Black halo-free *Total Level Control System (TLCS) for extended range of Iris control *Auto Tracing White Balance (ATW) function *EZ Mode and EZ Focus for quick camera setup *Scene File Operation by RCP-D50/D51 *File Operation using Memory Stick *Optical Neutral Density (ND) filter and electronic Color Correction (CC) filter *Clear Scan (CLS) Function



Supplied Accessories

Camera head (1)
Camera handle (1)
Operating instructions (1)
Chart for flange focal (1)
Lens mount cap (1)
Wind screen (1)

Optional Accessories

CA-D50 Camera Adaptor
CCU-D50P Camera Control Unit
CA-TX50P Camera Triax Adaptor
CCU-TX50P Camera Control Unit
RCP-D50 Remote Control Panel (Joystick Type)
RCP-D51 Remote Control Panel (Dial Control Type)
BC-M150 Ni-MH & Li-ion Battery Charger
BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
CMA-8ACE AC Adaptor
ECM-678 Electret Condenser Microphone
CAC-12 Camera Microphone Holder
WRT-847B UHF Handheld Transmitter
WRT-822B UHF Beltpack Transmitter
WRR-855B UHF Slot-in Receiver
WRR-862B UHF Dual Receiver
DXF-51 5-inch Monochrome Viewfinder
VCT-U14 Tripod Adaptor
CCZ-A Cables 26-pin/26-pin Cable
LC-HB330 Carrying Case
LCR-1 Camera Rain Cover
PH-8S Intercommunication Headset

Production Cameras

Specifications

Image device:	VIDEO OUT:
3-chip 2/3-inch type IT CCD	BNC
A/D conversion:	LENS:
12 bits	12-pin
Optics:	VF:
F1.4 medium index prism system	20-pin
Effective picture elements (H x V):	MONITOR OUT:
980 x 586	BNC type
Total picture elements (H x V):	REMOTE:
1038 x 1188	10-pin
Sensing area:	MIC IN:
6.6 mm x 8.8 mm	XLR 3-pin
Built-in filters:	Power requirements:
1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND	DC 12 V (10.5 to 17 V)
Electronic filter:	Power consumption:
5600K (on/off)	14 W
Lens mount:	Operating temperature:
Sony 2/3-inch Bayonet mount	-10°C to 45°C (14°F to 113°F)
Signal system:	Operating humidity:
PAL color system	Less than 85%
Scanning system:	Storage humidity:
2:1 interlaced, 525 lines, 60 fields/s	Less than 90%
Horizontal resolution:	Mass (camera head only):
15.625 kHz	2.2 kg (4 lb 13 oz)
Vertical frequency:	Eco Info:
50 Hz	Lead-free solder is used for soldering
Sync system:	certain parts.
Internal or external with VBS or BS signal	Halogenated flame retardants are not used
Horizontal resolution:	in cabinets.
920 TV lines	
Vertical resolution:	
480 TV lines (without EVS), 530 TV lines (with EVS)	
Minimum illumination:	
0.5 lx with F1.4, Hyper Gain (36 dB)	
0.8 lx with F1.8, Hyper Gain (36 dB)	
Sensitivity:	
F11 at 2000 lx (3200 K, 89.9% reflectance) (typical)	
Gain selection:	
-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 24 dB, 30 dB, 36 dB	
Shutter speed selection:	
OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s	
Clear scan selection:	
50.2 to 6000 Hz	
Signal-to-noise ratio:	
63 dB (typical)	
Registration:	
0.05% (all zones, without lens)	
Geometric distortion:	
Below measurable level	
Power requirements:	
DC 12 V	
Video output:	
Camera head BNC connector	
VBS:	
1.0 Vp-p, sync negative	
26-pin connector of CA-D50	
VBS:	
1.0 Vp-p, sync negative	
Y/R-Y/B-Y:	
Y: 1.0 Vp-p negative	
R-Y/B-Y: 525 mVp-p	
RGB:	
1.4 Vp-p	
Y/C:	
Y: 1.0 Vp-p negative	
C: 300 mVp-p (burst level)	
Input/output	
INTERFACE:	
Pro 76-pin DIGITAL, Pro 50-pin	

DXC-D50PK 3-chip CCD Portable Color Camera

Features

*Compact and lightweight: 2.2 kg (4 lb 13 oz) for camera head only
 *Three 2/3-inch type Power HAD CCDs offer low smear level characteristics, high sensitivity and high S/N ratio (63 dB), high horizontal resolution (920 TV lines)
 *Hyper Gain (36 dB) *12-bit AD converter and DSP (Digital Signal Processing) *Knee Saturation process for faithful color reproduction even in highlight area
 *Adaptive Highlight Control realize optimum contrast balance
 *Skin-Tone Detail function with auto detection of active area
 *Horizontal Detail Frequency Control
 *Low Key Saturation function
 *Cross-Color Suppression
 *Black halo-free
 *Total Level Control System (TLCS) for extended range of Iris control
 *Auto Tracing White Balance (ATW) function
 *EZ Mode and EZ Focus for quick camera setup
 *Scene File Operation by RCP-D50/D51
 *File Operation using Memory Stick
 *Optical Neutral Density (ND) filter and electronic Color Correction (CC) filter
 *Clear Scan (CLS) Function



Supplied Accessories

Camera head (1)
 Camera handle (1)
 Operating instructions (1)
 Chart for flange focal (1)
 Lens mount cap (1)
 Wind screen (1)
 External Microphone (1)
 DXF-801 Viewfinder (1)
 Zoom Lens (1)

Optional Accessories

CA-D50 Camera Adaptor
 CCU-D50P Camera Control Unit
 CA-TX50P Camera Triax Adaptor
 CCU-TX50P Camera Control Unit
 RCP-D50 Remote Control Panel (Joystick Type)
 RCP-D51 Remote Control Panel (Dial Control Type)
 BP-GL65 Rechargeable Lithium-ion Battery Pack
 BP-GL95 Rechargeable Lithium-ion Battery Pack
 BC-M150 Ni-MH & Li-ion Battery Charger
 CMA-8ACE AC Adaptor
 ECM-678 Electret Condenser Microphone
 CAC-12 Camera Microphone Holder
 WRT-847B UHF Handheld Transmitter
 WRT-822B UHF Belt-pack Transmitter
 WRR-855B UHF Slot-in Receiver
 WRR-862B UHF Dual Receiver
 DXF-51 5-inch Monochrome Viewfinder
 VCT-U14 Tripod Adaptor
 CCZ-A Cables 26-pin/26-pin Cable
 LC-HB330 Carrying Case
 LCR-1 Camera Rain Cover
 PH-8S Intercommunication Headset



Production Cameras

Specifications

Image device:

3-chip 2/3-inch type IT CCD

A/D conversion:

12 bits

Optics:

F1.4 medium index prism system

Effective picture elements (H x V):

980 x 586

Total picture elements (H x V):

1038 x 1188

Sensing area:

6.6 mm x 8.8 mm

Built-in filters:

1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND

Electronic filter:

5600K (on/off)

Lens mount:

Sony 2/3-inch Bayonet mount

Signal system:

PAL color system

Scanning system:

2:1 interlaced, 525 lines, 60 fields/s

Horizontal resolution:

15.625 kHz

Vertical frequency:

50 Hz

Sync system:

Internal or external with VBS or BS signal

Horizontal resolution:

920 TV lines

Vertical resolution:

480 TV lines (without EVS), 530 TV lines (with EVS)

Minimum illumination:

0.5 lx with F1.4, Hyper Gain (36 dB)

0.8 lx with F1.8, Hyper Gain (36 dB)

Sensitivity:

F11 at 2000 lx (3200 K, 89.9% reflectance) (typical)

Gain selection:

-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 24 dB, 30 dB, 36 dB

Shutter speed selection:

OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s

Clear scan selection:

50.2 to 6000 Hz

Signal-to-noise ratio:

63 dB (typical)

Registration:

0.05% (all zones, without lens)

Geometric distortion:

Below measurable level

Power requirements:

DC 12 V

Video output:

Camera head BNC connector

VBS:

1.0 Vp-p, sync negative

26-pin connector of CA-D50

VBS:

1.0 Vp-p, sync negative

Y/R-Y/B-Y:

Y: 1.0 Vp-p negative

R-Y/B-Y: 525 mVp-p

RGB:

1.4 Vp-p

Y/C:

Y: 1.0 Vp-p negative

C: 300 mVp-p (burst level)

Input/output

INTERFACE:

Pro 76-pin DIGITAL, Pro 50-pin

VIDEO OUT:

BNC

LENS:

12-pin

VF:

20-pin

MONITOR OUT:

BNC type

REMOTE:

10-pin

MIC IN:

XLR 3-pin

Power requirements:

DC 12 V (10.5 to 17 V)

Power consumption:

14 W

Operating temperature:

-10°C to 45°C (14°F to 113°F)

Operating humidity:

Less than 85%

Storage humidity:

Less than 90%

Mass (camera head only):

2.2 kg (4 lb 13 oz)

Eco Info:

Lead-free solder is used for soldering certain parts.

Halogenated flame retardants are not used in cabinets.

DXC-D50PL 3-chip CCD Portable Color Camera

Features

*Compact and lightweight: 2.2 kg (4 lb 13 oz) for camera head only
 *Three 2/3-inch type Power HAD CCDs offer low smear level characteristics, high sensitivity and high S/N ratio (63 dB), high horizontal resolution (920 TV lines)
 *Hyper Gain (36 dB) *12-bit AD converter and DSP (Digital Signal Processing) *Knee Saturation process for faithful color reproduction even in highlight area
 *Adaptive Highlight Control realize optimum contrast balance *Skin-Tone Detail function with auto detection of active area *Horizontal Detail Frequency Control
 *Low Key Saturation function *Cross-Color Suppression
 *Black halo-free *Total Level Control System (TLCS) for extended range of Iris control *Auto Tracing White Balance (ATW) function *EZ Mode and EZ Focus for quick camera setup *Scene File Operation by RCP-D50/D51 *File Operation using Memory Stick
 *Optical Neutral Density (ND) filter and electronic Color Correction (CC) filter *Clear Scan (CLS) Function



Supplied Accessories

Camera head (1)
 Camera handle (1)
 Operating instructions (1)
 Chart for flange focal (1)
 Lens mount cap (1)
 Wind screen (1)
 External Microphone (1)
 DXF-801 Viewfinder (1)

Optional Accessories

CA-D50 Camera Adaptor
 CCU-D50P Camera Control Unit
 CA-TX50P Camera Triax Adaptor
 CCU-TX50P Camera Control Unit
 RCP-D50 Remote Control Panel (Joystick Type)
 RCP-D51 Remote Control Panel (Dial Control Type)
 RM-M7G Remote Control Unit
 BP-GL65 Rechargeable Lithium-ion Battery Pack
 BP-GL95 Rechargeable Lithium-ion Battery Pack
 BC-M150 Ni-MH & Li-ion Battery Charger
 CMA-8ACE AC Adaptor
 ECM-678 Electret Condenser Microphone
 CAC-12 Camera Microphone Holder
 WRT-847B UHF Handheld Transmitter
 WRT-822B UHF Beltpack Transmitter
 WRR-855B UHF Slot-in Receiver
 WRR-862B UHF Dual Receiver
 DXF-51 5-inch Monochrome Viewfinder
 VCT-U14 Tripod Adaptor
 CCZ-A Cables 26-pin/26-pin Cable
 LC-HB330 Carrying Case
 LCR-1 Camera Rain Cover
 PH-8S Intercommunication Headset

Specifications

Image device:	3-chip 2/3-inch type IT CCD	VIDEO OUT:	BNC
A/D conversion:	12 bits	LENS:	12-pin
Optics:	F1.4 medium index prism system	VF:	20-pin
Effective picture elements (H x V):	980 x 586	MONITOR OUT:	BNC type
Total picture elements (H x V):	1038 x 1188	REMOTE:	10-pin
Sensing area:	6.6 mm x 8.8 mm	MIC IN:	XLR 3-pin
Built-in filters:	1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND	Power requirements:	DC 12 V (10.5 to 17 V)
Electronic filter:	5600K (on/off)	Power consumption:	14 W
Lens mount:	Sony 2/3-inch Bayonet mount	Operating temperature:	-10°C to 45°C (14°F to 113°F)
Signal system:	PAL color system	Operating humidity:	Less than 85%
Scanning system:	2:1 interlaced, 525 lines, 60 fields/s	Storage humidity:	Less than 90%
Horizontal resolution:	15.625 kHz	Mass (camera head only):	2.2 kg (4 lb 13 oz)
Vertical frequency:	50 Hz	*Eco Info*:	Lead-free solder is used for soldering certain parts.
Sync system:	Internal or external with VBS or BS signal		Halogenated flame retardants are not used in cabinets.
Horizontal resolution:	920 TV lines		
Vertical resolution:	480 TV lines (without EVS), 530 TV lines (with EVS)		
Minimum illumination:	0.5 lx with F1.4, Hyper Gain (36 dB) 0.8 lx with F1.8, Hyper Gain (36 dB)		
Sensitivity:	F11 at 2000 lx (3200 K, 89.9% reflectance) (typical)		
Gain selection:	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 24 dB, 30 dB, 36 dB		
Shutter speed selection:	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s		
Clear scan selection:	50.2 to 6000 Hz		
Signal-to-noise ratio:	63 dB (typical)		
Registration:	0.05% (all zones, without lens)		
Geometric distortion:	Below measurable level		
Power requirements:	DC 12 V		
Video output:	Camera head BNC connector		
	VBS:		
	1.0 Vp-p, sync negative		
	26-pin connector of CA-D50		
	VBS:		
	1.0 Vp-p, sync negative		
	Y/R-Y/B-Y:		
	Y: 1.0 Vp-p negative		
	R-Y/B-Y: 525 mVp-p		
	RGB:		
	1.4 Vp-p		
	Y/C:		
	Y: 1.0 Vp-p negative		
	C: 300 mVp-p (burst level)		
Input/output			
INTERFACE:	Pro 76-pin DIGITAL, Pro 50-pin		

DXC-D50WSPL 3-chip CCD Portable Color Camera

Features

*Compact and lightweight: 2.2 kg (4 lb 13 oz) for camera head only *Three 2/3-inch type Power HAD CCDs offer low smear level characteristics, high sensitivity and high S/N ratio (63 dB), and high horizontal resolution (850 TV lines/4:3 mode, 800 TV lines/16:9 mode) *16:9 and 4:3 Switchable *16:9 ID Pulse *Hyper Gain (36 dB) *12-bit AD converter and DSP (Digital Signal Processing) *Knee Saturation process for faithful color reproduction even in highlight area *Adaptive Highlight Control realize optimum contrast balance *Skin-Tone Detail function with auto detection of active area *Horizontal Detail Frequency Control *Low Key Saturation function *Cross-Color Suppression *Black halo-free *Total Level Control System (TLCS) for extended range of Iris control *Auto Tracing White Balance (ATW) function *EZ Mode and EZ Focus for quick camera setup *Scene File Operation by RCP-D50/D51 *File Operation Using Sony Memory Stick *Clear Scan (CLS) Function



Supplied Accessories

Camera head (1)
Camera handle (1)
Operating instructions (1)
Chart for flange focal (1)
Lens mount cap (1)
Wind screen (1)
External Microphone (1)
DXF-801 Viewfinder (1)

Optional Accessories

CA-D50 Camera Adaptor
CCU-D50P Camera Control Unit
CA-TX50P Camera Triax Adaptor
CCU-TX50P Camera Control Unit
RCP-D50 Remote Control Panel (Joystick Type)
RCP-D51 Remote Control Panel (Dial Control Type)
BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
BC-M150 Ni-MH & Li-ion Battery Charger
CMA-8ACE AC Adaptor
ECM-678 Electret Condenser Microphone
CAC-12 Camera Microphone Holder
WRT-847B UHF Handheld Transmitter
WRT-822B UHF Beltpack Transmitter
WRR-855B UHF Slot-in Receiver
WRR-862B UHF Dual Receiver
DXF-51 5-inch Monochrome Viewfinder
VCT-U14 Tripod Adaptor
CCZ-A Cables 26-pin/26-pin Cable
LC-HB330 Carrying Case
LCR-1 Camera Rain Cover
PH-8S Intercommunication Headset

Production Cameras

Specifications

Image device:

3-chip 2/3-inch type IT CCD

A/D conversion:

12 bits

Optics:

F1.4 medium index prism system

Effective picture elements (H x V):

980 x 586

Total picture elements (H x V):

1038 x 1188

Sensing area:

9.6 mm x 5.4 mm

Built-in filters:

1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND

Electronic filter:

5600K (on/off)

Lens mount:

Sony 2/3-inch Bayonet mount

Signal system:

PAL color system

Scanning system:

2:1 interlaced, 625 lines, 50 fields/s

Horizontal resolution:

15.625 kHz

Vertical frequency:

50 Hz

Sync system:

Internal or external with VBS or BS signal

Horizontal resolution:

850 TV lines (4:3 mode), 800 TV lines (16:9 mode)

Vertical resolution:

480 TV lines (without EVS), 530 TV lines (with EVS)

Minimum illumination:

0.5 lx with F1.4, Hyper Gain (36 dB)

0.8 lx with F1.8, Hyper Gain (36 dB)

Sensitivity:

F11 at 2000 lx (3200 K, 89.9% reflectance) (typical)

Gain selection:

-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 24 dB, 30 dB, 36 dB

Shutter speed selection:

OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s

Clear scan selection:

50.2 to 6000 Hz

Signal-to-noise ratio:

63 dB (typical)

Registration:

0.05% (all zones, without lens)

Geometric distortion:

Below measurable level

Power requirements:

DC 12 V

Video output:

Camera head BNC connector

VBS:

1.0 Vp-p, sync negative

26-pin connector of CA-D50

VBS:

1.0 Vp-p, sync negative

Y/R-Y/B-Y:

Y: 1.0 Vp-p negative

R-Y/B-Y: 525 mVp-p

RGB:

1.4 Vp-p

Y/C:

Y: 1.0 Vp-p negative

C: 300 mVp-p (burst level)

Input/output

INTERFACE:

Pro 76-pin DIGITAL, Pro 50-pin

VIDEO OUT:

BNC

LENS:

12-pin

VF:

20-pin

MONITOR OUT:

BNC type

REMOTE:

10-pin

MIC IN:

XLR 3-pin

Power requirements:

DC 12 V (10.5 to 17 V)

Power consumption:

14 W

Operating temperature:

-10°C to 45°C (14°F to 113°F)

Operating humidity:

Less than 85%

Storage humidity:

Less than 90%

Mass (camera head only):

2.2 kg (4 lb 13 oz)

Eco Info:

Lead-free solder is used for soldering certain parts.

Halogenated flame retardants are not used in cabinets.

SONY

Sensor Cameras

BRC-300	24
BRC-H700	26
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DXC-990P	30
DXC-C33P	32

BRC-300 3-CCD Color Video Camera

Features

*1/4.7-type IT Mega Pixels 3-CCD with Advanced HAD technology*Unique-all-in-one design - Combines camera, lens & pan/tilt mount*48x zoom capability*Minimum illumination - 7 lx at F1.6*Horizontal resolution 600 TV lines*High performance Pan/Tilt/Zoom mechanism*4:3/16:9 aspect selectable (16:9 precision technology)*Image flip function - Allows for desk top or ceiling mount installation*Optional interface card slot - RGB, SDI, and Fiber*Optional easy-to-use and ergonomic designed RemoteControl Unit - Remotely control via RS-232C and RS-422 (VISCA protocol)* Optional Optical Multiplex Unit - Allows for long-distance operation using fiber cable

Supplied Accessories

AC adaptor (1)
IR remote commander (1)
Terminal connector (1)
AC adaptor cable (1)
Ceiling bracket (2)
Operating instructions (1)

Optional Accessories

BRBK-301 Analog/RGB Component Card
BRBK-302 SDI Card
BRBK-303 Optical Multiplex Card
RM-BR300 Remote Control Unit
BRU-300 Optical Multiplex Unit
CCFC-M100 Optical Fiber Cable
CCXC-9DBS Cable 9-pin/5BNCs Cable
VCL-HG0737X Wide Conversion Lens
CCMC-9DS Cable 9-pin/4BNCs, DIN 4-pin



Specifications

Image device:

Three 1/4.7 type IT Advanced HAD CCD (x3),
1070000pixels (gross)

CCD effective pixels

4:3 mode:

960 (H) x 720 (V)

16:9 mode:

1,152 (H) x 648 (V)

Effective pixels

NTSC:

768 (H) x 494 (V)

PAL:

752 (H) x 582 (V)

Signal systems:

NTSC/PAL

Horizontal resolution:

600 TV lines(4:3 mode)

Sync systems:

Internal/External

Lens:

12x optical zoom, 48x with digital zoom

Focal length:

f = 3.6 to 43.2 mm (F1.6 to F2.8)

Horizontal viewing angle

4:3 mode:

3.3 (Tele end) to 37.8 degrees (Wide end)

16:9 mode:

4.0 (Tele end) to 45.4 degrees (Wide end)

Minimum object distance:

300 mm (Wide end), 800 mm (Tele end)

Pan/Tilt angle:

-170 to +170 degrees (Pan), -30 to +90
degrees (Tilt)

Pan/Tilt speed:

0.25 to 60 degrees/s (Pan/Tilt)

Minimum illumination:

7 lx at F1.6

S/N ratio:

50 dB

Shutter speed

NTSC:

1/10000 to 1/4 s

PAL:

1/10000 to 1/3 s

Gain:

Auto/Manual (-3 to 18 dB, 3 dB steps)
switchable

White balance:

Auto, Indoor, Outdoor, One-push WB, Manual

Preset positioning:

6 positions

Analog output:

VBS (BNC), Y/C (4-pin Mini DIN)

Camera control interface:

RS-232C (VISCA protocol) / RS-422 (VISCA
protocol)

Back-light compensation:

On / Off

Operating temperature:

0 to 40 degrees (32 to 104 °F)

Storage temperature:

-20 to 60 degrees (-4 to 140 °F)

Power requirement:

DC 12 V

Power consumption:

21.6 W (without optional card)

Dimensions (W x H x D):

180 x 210.1 x 205 mm (7 1/8 x 8 3/8 x 8 1/8 x
inches) (without projection ports)

Mass:

2.7 kg (5 lb 15 oz)

BRC-H700 HD 3CCD Color Video Camera

Features

*Superb picture quality with three 1.07 megapixel HD CCDs *High-performance Pan/Tilt/Zoom mechanism
*RS-232C/RS-422 remote control (VISCA protocol)
*Versatile video outputs *Flexible installation - ceiling mount or flat surface *Sixteen presets *Multi-function IR remote commander unit *Easy-to-use and ergonomically designed remote control unit (RM-BR300) *Optical multiplex unit (BRU-H700)

Supplied Accessories

IR Remote Commander Unit
Wire rope
Mounting screws
Operating instructions
AC adaptor
AC power cable
Ceiling bracket
RS-422 terminal block connector

Optional Accessories

BRBK-H700 HD Optical Multiplex Card With Audio IN (RCA pin)
HFBK-HD1 HD SDI Output Board
HFBK-SD1 SDI Output Board
HFBK-XG1 XGA Output Board
RM-BR300 Remote Control Unit
CCMC-9DS Cable 9-pin/4BNCs, DIN 4-pin
CCXC-9DBS Cable 9-pin/5BNCs Cable
HFBK-TS1 iLINK (HDV) Output Board

Service Parts

HD Optical Multiplex Unit



Specifications

Image device

Three 1/3 type IT CCDs

Total picture elements

Approx. 1.12 Megapixels

Effective picture elements

Approx. 1.07 Megapixels

Signal systems

1080/59.94i, 1080/50i (switchable)

Lens

12x optical zoom, 48x with digital zoom

Carl Zeiss Vario-Sonnar T*(R)

Focal length

f=4.5 to 54.0 mm (F1.6 to F2.8)

Minimum object distance

800 mm (Tele end)

Horizontal viewing angle without Image Stabilization

5.5 degrees (Tele) to 60.3 degrees (Wide)

Vertical viewing angle without Image Stabilization

3.1 degrees (Tele) to 36.2 degrees (Wide)

Focus system

Auto/Manual

Pan/Tilt angle

-170 to +170 degrees (Pan),

-30 to +90 degrees (Tilt)

Pan/Tilt speed

0.25 to 60 degrees/s (Pan/Tilt)

Minimum illumination

6 lx (50 IRE, F1.6)

S/N ratio

50 dB

Shutter speed

1/10,000 to 1/59.94 (1/50) s

Gain

Auto/Manual (0 to 18 dB and Hyper Gain)

White balance

Auto, Indoor, Outdoor, One-push WB, Manual

Optical Image Stabilizer

On/Off

Image flip

On/Off

ND filter

Off/ND1/ND2

Preset positioning

16 positions

Video output (Built-in)

Analog RGB, Analog Y/Pb/Pr

Video output (With optional card(s))

HFBK-HD1: HD-SDI,

HFBK-SD1: Down converted SD

(RGB, Y/Cb/Cr, Y/C, Composite, SDI x2)

HFBK-XG1: WXGA, XGA, VGA,

HFBK-TS1: HDV

Camera control interface

RS-232C/RS-422 (VISCA protocol)

Backlight compensation

On/Off

Operating temperature

0 to 40 degrees (32° to 104° F)

Storage temperature

-20 to 60 degrees (-4° to 140° F)

Power requirements

DC 12 V

Power consumption

Max. 24 W (without optional card)

Dimensions (Diameter x H)

207 x 315.8 mm (8 1/4 x 12 1/2 inches)

Mass

4.5 kg (9 lb 15 oz)

DXC-390P 3-CCD Color Video Camera

Features

*1/3 type IT 3CCDs*C mount*Exwave HAD technology provides excellent sensitivity and low smear levels*Superior picture quality: High resolution of 800 TV lines and S/N ratio of 61 dB*High Sensitivity of F8 at 2000 lux*Scene Files and User Files*Powerful picture contrast controls: DynaLatitude, DCC+ and Black Stretch*Several enhance controls: Detail, Linear Matrix and Partial Enhance*Wide selection of Automatic Exposure (AE) modes*Hyper Gain*RGB, Y/C and composite video outputs*Full control of functions from the side panel or the optional RM-C950 Remote Control Unit



Supplied Accessories

Lens cap (1)
Tripod adaptor (1)
Operation manual (1)
Panel sheet for RM-C950 (1)

Optional Accessories

VCL-616WEA 1/3 Type C-mount Lens
RM-C950 Remote Control Unit
CMA-D2CE Camera Adaptor
CMA-D3CE Camera Adaptor
CCDC cables 12-pin/4-pin DC Cables
CCXC-12 cables 12-pin/12-pin Multi Core Cables
CCMC-9DS Cable 9-pin/4BNCs, DIN 4-pin

Sensor Cameras

Specifications

Image device:

1/3 type IT (Interline Transfer) CCD (x3)

Effective picture elements:

752 (H) × 582 (V)

Sensing area:

6.00 (H) × 4.96 (V) mm

Scanning system:

2:1 interlaced, 625 lines

Horizontal frequency:

15.625 kHz

Vertical frequency:

50 Hz

Sync system:

Internal or External with VBS,
HD/VD(Automatic Switching)

Phase control:

H/SC phase control

Horizontal resolution:

800TV lines

Lens mount:

C mount

Flange back:

17.526 mm in air

Sensitivity:

F8.0 at 2000 lux

Minimum illumination

4 lux (F2, GAIN:HYPER)

S/N ratio:

61 dB

Gain

STEP/AGC/HYPER selectable

STEP:

0 to 24 dB by 1 dB step

AGC:

0 to 24 dB (Limit value: 6 dB, 12 dB,
18 dB, 24 dB variable)

HYPER:

30 dB

Electronic shutter

OFF/STEP/VARIABLE/CCD IRIS selectable

OFF:

1/50 s

STEP:

OFF (PAL:1/50 s), F.L.(PAL:1/120 s),
1/125, 1/250, 1/500, 1/1000, 1/2000,
1/4000, 1/10000, 1/20000, 1/40000,
1/100000, 0.1, 0.2, 0.3, 0.5, 1.0, 1.5,
2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 7.0,
8.0 s

VARIABLE:

in high-speed mode 310/625 to

1/625H, OFF

in low-speed mode 255 to 1 frames
for field mode

256 to 2 frames for frame mode

CCD IRIS:

1/60 to 1/100,000 s (Limit value:

1/500, 1/1000, 1/2000, 1/4000,

1/10000, 1/20,000, 1/40,000,

1/100,000 s variable)

Lens:

Remote (Auto or Manual)/Video selectable

AE area:

Multi/Large/Medium/Spot/Slit/Manual
selectable

AE level:

Variable

AE speed:

Fast/Mid/Slow selectable

AE detect:

Average/Peak selectable

Contrast Effect:

Manual/DynaLatitude/DCC+ selectable

Knee Point:

High/Normal/Low selectable(Contrast

Effect: Manual)

Black stretch:

Variable (Contrast Effect: Manual)

Gamma:

ON/OFF Variable

Pedestal:

Master and R/B Manual adjustable

Black balance:

ABB

White balance:

AWB/ATW NORMAL/ATW

WIDE/MANUAL/3200K/5600K selectable

AWB or ATW R/B Paint, MANUAL R/B Gain

ATW area:

NORMAL/MANU selectable

ATW speed:

FAST/NORMAL/SLOW selectable

Detail level:

ON/OFF (Variable at ON)

Detail Frequency:

HIGH/MID/LOW selectable

Linear matrix:

ON/OFF

Linear matrix MODE:

STANDARD/R Enhance/G Enhance/B

Enhance/Manual selectable

Partial Enhance:

ALL/IN/OUT selectable

CCD integration mode:

FIELD/FRAME selectable

Shading Compensation:

OFF/ON (Manual control)

Trigger Polarity:

Positive edge trigger /Negative edge

trigger selectable

Baud rate:

19200/9600/4800/2400/1200 selectable

Sync:

RGB/G/OFF selectable

Strobe:

ON/OFF

User File:

A/B switchable (Two pattern memories)

Scene File:

STANDARD/MICROSCOPE/FULL

AUTO/STROBE/FILE A or B

Output signal

VBS:

1.0 Vp-p, 75 Ω , sync negative

RGB:

0.7 Vp-p, 75 Ω , Sync ON/OFF possible

SYNC:

2 Vp-p, 75 Ω

Y:

1.0 Vp-p, 75 Ω

C:

0.3 Vp-p, 75 Ω , without sync

Operating temperature:

-5 to 45°C

Storage temperature:

-20 to 60°C

Power requirements:

DC 10.5 to 15.0 V

Power consumption:

Approx. 7.6 W

Dimensions:

56 (W) × 50 (H) × 128 (D) mm

(Excluding projecting parts)

Weight:

Approx. 370 g

Connectors:

Lens (6-pin)

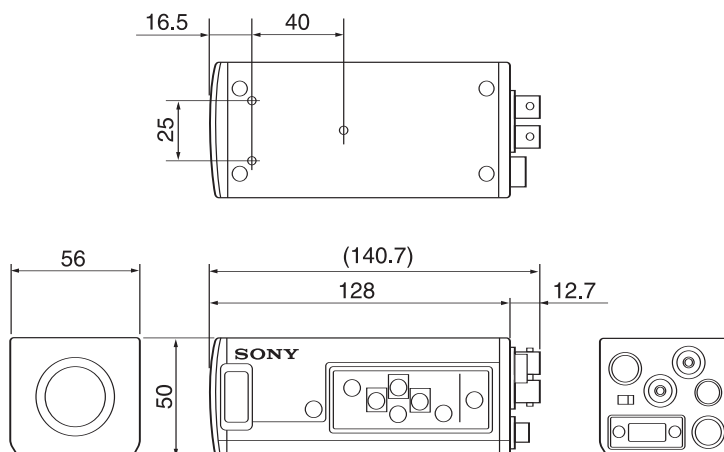
RGB/SYNC (9-pin D-sub)

DC IN/VBS (12-pin)

VIDEO OUT (BNC)

TRIGGER IN (BNC)

REMOTE (8-pin mini DIN)



DXC-990P 3-CCD Color Video Camera

The DXC-990P is a 1/2 type 3-CCD color video camera featuring a new DSP technology as well as Exwave HAD technology for excellent sensitivity (F11@2000 lux) and low vertical smear. Using a bayonet mount lens and providing a resolution of 850 TV lines and high S/N ratio (62 dB), the DXC-990P is ideal for applications such as semiconductor inspection, printing inspection and microscopy, where picture accuracy and detail are important. All functions are easily controlled from the camera's rear panel with an optional RM-C950 Remote Control Unit or an external computer via an RS-232C interface. Multiple component, RGB, Y/C and composite video signal outputs allow the DXC-990P to be integrated into virtually any industrial video system. Optional adapters and couplers are available for mounting onto various types of microscopes.

Features

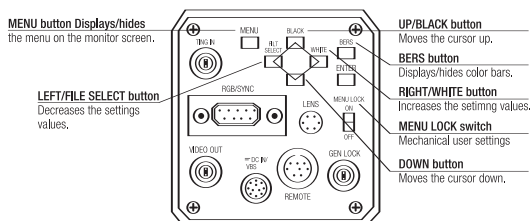
- *New Digital Signal Processing (DSP) technology for powerful picture contrast controls
- *Partial Enhance*
- *DynaLatitude*
- *DCC+*
- *High Sensitivity (F11@2000 lux)*
- *Y/C, RGB, Y/R-Y/B-Y, and composite video signal outputs
- *Linear matrix, shading compensation, master pedestal and gamma selection*
- *Flash synchronization function*
- *Full color genlock*
- *CCD iris and adjustable window
- *Auto Exposure*
- *Fixed, One-push, Manual and Automatic White Balance*
- *Color shading matrix and painting connections*
- *Two set up memories*
- *Color bar generator*
- *Cable extension up to 100 m with CMA-D3 adaptor

Supplied Accessories

- Lens mount cap (1)
- Stopper mount (1)
- Operation manual (1)
- Panel sheet for RM-950 (1)

Optional Accessories

- CMA-D2CE Camera Adaptor
- CMA-D2MDCE Camera Adaptor
- CMA-D3CE Camera Adaptor
- CCXC-12 cables 12-pin/12-pin Multi Core Cables
- CCDC cables 12-pin/4-pin DC Cables
- CCMC-9DS Cable 9-pin/4BNCs, DIN 4-pin
- CCMC-3MZ Cable
- RM-C950 Remote Control Unit
- VCL-0716BXA 1/2 Type Bayonet Mount Lens



Specifications

Image device:
1/2 type IT (Interline Transfer) Exwave CCD (x3)

Effective picture elements:
752 (H) x 582 (V)

Sensing area:
6.4 x 4.8 mm

Horizontal frequency:
15.734 kHz

Vertical frequency:
59.94 Hz

Sync sytem:
Internal or external with VBS, HD/VD

Horizontal resolution:
850 TV lines

Sensitivity:
F11 (2000 lux)

Minumum illumination:
1 lux (F1.4, GAIN: HYPER)

S/N ratio:
62 dB

Gain:
STEP/AGC (0 to 24 dB)/HYPER

Shutter speed:
0.5 to 1/100,000 s

Lens mount:
Bayonet mount

AE area:
Multi/Large/Medium/Spot/Slit/Manual

AE level:
Variable

AE speed:
Fast/Mid/Slow selectable

AE detect:
Average/Peak selectable

Contrast effect:
Manual/DynaLatitude/DCC+ selectable

Knee point:
High/Normal/Low selectable

Black stretch:
Variable

Gamma:
On/Off

Pedestal:
Master, R/B manual adjustable

Black balance:
ABB

White balance:
AWB/ATW normal/ATW wide/Manual/3200 K/5600 K selectable
AWB or ATW R/B paint, manual R/G gain

ATW area:
Normal/Manual

ATW speed:
Slow/Mid/Fast

Detail level:
On (Variable)/Off

Detail frequency:
High/Mide/Low

Linear matrix:
On/Off

Linear matrix code:
STANDARD/R Enhance/G Enhance/B Enhance/Manual selectable

Partial enhance:
All/In/Out

CCD integration mode:
Field/Frame

Shading compensation:
On/Off (manual)

Trigger polarity:
Positive edge trigger/Negative edge trigger selectable

Baud rate:
19200/9600/4800/2400/1200

Sync:
RGB/G/OFF

Trigger:
On/Off

User file:
A/B

Scene file:
Standard/Microscope/Full Auto/Strobe/File A or B

Output signals:
VBS, RGB/SYNC, Y/C, Y/R-Y/B-Y

Serial data:
RS-232C

Operational temperature:
-5 to 45°C (23 to 113°F)

Storage temperature:
-20 to 60°C (-4 to 140°F)

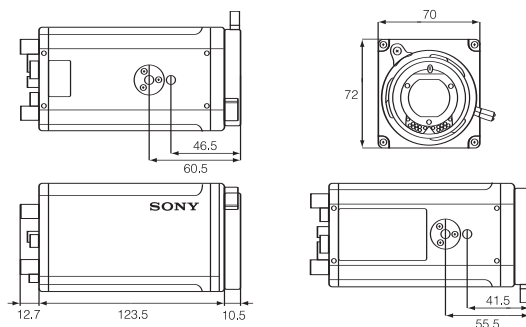
Power requirements:
DC 10.5 to 15.0 V

Power consumption:
Approx. 8.0 W

Dimensions:
70 x 72 x 123.5 mm (2 7/8 x 2 7/8 x 4 7/8 inches)

Mass:
630 g (1 lb 6 oz)

Connectors:
RGB/SYNC (9-pin D-sub), DC IN/VBS (12-pin), VIDEO OUT (BNC), TRIGGER IN (BNC), REMOTE (8-pin mini DIN), GEN LOCK IN (BNC), LENS (6-pin)



DXC-C33P 3-CCD Color Video Camera

Ideal for use in space-limited locations, the DXC-C33P incorporates one of the smallest/lightest camera head unit featuring three 1/3 type CCDs. In spite of its compact (32 (W) x 38 (H) x 40 (D) mm, 1 5/16 x 1 1/2 x 1 5/8 inches) and lightweight (48 g, 1.7 oz) camera head unit, this model inherits superb picture quality of the DXC Series. Its horizontal resolution is 850 TV lines and the high sensitivity is 2000 lux at F8. Also, various features such as DynaLatitude, Partial Enhance are provided to this model. First for the DXC Series and also first for 3-CDD small head cameras, the DXC-C33P is equipped with a DV output terminal. Thanks to the DV output terminal, video signals can be recorded to i.LINK interface-equipped VTR with no quality deterioration. With the excellent features and medical approval, the DXC-C33P is the right choice for medical fields, and also for demanding applications such as research and industrial fields.



Features

*Small camera head*High picture quality*i.LINK DV out*10-bit DSP*DynaLatitude*Frame memory*Partial Enhance*User-friendly control panel*Two AE areas preset*RS-232C interface*External synchronization (HD/VD, VBS)

Supplied Accessories

Tripod adaptor (1)
AC power cable (1)
Lens cap (1)
Panel sheet for RM-C950 (1)
Operation manual (1)

Optional Accessories

RM-C950 Remote Control Unit
CCMC-20 cables 20-pin/20-pin Cable
CCMC-9DS Cable 9-pin/4BNCs, DIN 4-pin

Specifications

Image device:
1/3 type IT (Interline Transfer) CCD (x3)

Effective picture elements:
752 (H) x 582 (V)

Sensing area:
4.8 (H) x 3.6 (V) mm

Scanning system:
2:1 interlaced, 625 lines

Horizontal frequency:
15.625 kHz

Vertical frequency:
50 Hz

Sync system:
Internal or external with VBS or HD/VD

Phase control:
H/SC phase control

Horizontal resolution:
850 TV lines

Lens mount:
C mount

Flange back:
17.526 mm in air

Sensitivity:
F8.0 at 2000 lux (3200 K)

Minimum illumination:
4 lux (F2, GAIN: HYPER)

S/N ratio:
61 dB (Typical)

Gain
STEP/AGC/HYPER selectable
STEP:
0 to 24 dB by 1 dB step
AGC:
0 to 24 dB (Limit value: 6 dB, 12 dB, 18 dB, 24 dB selectable)
HYPER:
30 dB

Electronic shutter:
8.0 to 1/100,000 s

Lens:
Manual Iris

AE area:
Multi/Large/Medium/Spot/Slit/Manual selectable

AE level:
Variable

AE speed:
Fast/Mid/Slow selectable

AE detect:
Average/Peak selectable

Contrast effect:
Manual/DynaLatitude/DCC+ selectable

Knee point:
High/Normal/Low selectable
(Contrast Effect: Manual)

Black stretch:
Variable (Contrast Effect: Manual)

Gamma:
ON/OFF (Variable at ON)

Pedestal:
Master and R/B Manual adjustable

Black balance:
ABB

White balance:
AWB/ATW NORMAL/ATW
WIDE/MANUAL/3200 K/5600 K selectable
AWB or ATW R/B Paint, MANUAL R/B Gain

ATW area:
NORMAL/MANU selectable

ATW speed:
FAST/NORMAL/SLOW selectable

Detail level:
ALL/TARGET/OFF (Variable at ALL or TARGET)

Detail frequency:
HIGH/MID/LOW selectable

Linear matrix:
ALL/TARGET/OFF

Linear matrix mode:
STANDARD/R Enhance/G Enhance/B Enhance/Manual selectable

Partial enhance:
ALL/IN/OUT selectable

CCD integration mode:
FIELD/FRAME selectable

Shading compensation:
OFF/ON (Manual control)

Trigger polarity:
Positive edge trigger/Negative edge trigger selectable

Baud rate:
19200/9600/4800/2400/1200 selectable

Sync:
RGB/G/OFF selectable

Strobe:
Slave

User file:
A/B switchable
(Two pattern memories)

Scene file:
STANDARD/MICROSCOPE/FULL
AUTO/STROBE/FILE A or B

Output signal
i.LINK (DV):
IEEE1394 Based

VBS:
1.0 Vp-p, 75 Ω , sync negative

RGB:
0.7 Vp-p, 75 Ω , sync switchable

SYNC:
2 Vp-p, 75 Ω

Y:
1.0 Vp-p, 75 Ω

C:
PAL 0.3 Vp-p, 75 Ω , without sync

Operating temperature:
-5 to 45°C (23 to 113°F)

Storage temperature:
-20 to 60°C (-4 to 140°F)

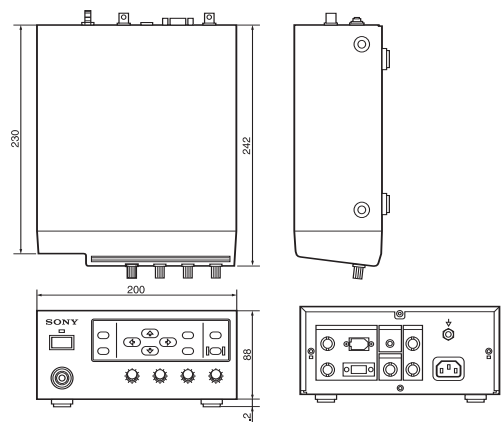
Power supply:
AC 100 to 240 V, 50/60 Hz

Power consumption:
Max. 18 W

Dimensions
CHU: 32 (W) x 38 (H) x 40 (D) mm
(1 5/16 x 1 1/2 x 1 5/8 inches)
CCU: 200 (W) x 88 (H) x 242 (D) mm
(7 7/8 x 3 1/2 x 9 5/8 inches)

Mass
CHU: 48 g (1.7 oz)
CCU: 2.5 kg (5 lb 8 oz)

Connectors:
DV OUT (6-pin jack)
RGB/SYNC (9-pin D-sub)
VIDEO OUT (BNC)
S-VIDEO (4-pin mini DIN)
FS/TRIG IN (Stereo Mini jack)
REMOTE (8-pin mini DIN)
AC Inlet
Camera (20-pin)



SONY

Camera Accessories/Peripherals

BKP-9057	36	RCP-751	64
BRBK-301	37	RCP-D50	65
BRBK-302	37	RCP-D51	65
BRBK-303	37	RM-BR300	66
BRBK-304	37	RM-C950	66
BRBK-H700	37	RMM-301	66
BRU-300	38	VCL-0716BXA	67
BRU-H700	38	VCL-616WEA	67
BVF-20WCE	39	VCS-700	68
BVF-55CE	39	VCT-14	69
BVF-77CE	40	VCT-U14	69
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CA-590P	41	VFH-770	70
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CMA-D2	51		
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CNU-700	54		
DXF-51	55		
HDVF-C30W	56		
HFBK-SD1	57		
HFBK-HD1	57		
HFBK-XG1	57		
HFBK-TS1	57		
HKCU-1001	58		
HKCU-1003	58		
HKCU-1005	58		
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LC-H300	59		
LC-HB330	59		
LCR-1	60		
LO-23	60		
LO-26	60		
MSU-900	61		
MSU-950	62		
RCP-700	63		
RCP-701	63		
RCP-750	64		

BKP-9057 Viewfinder Saddle

Features

*For mounting 7-inch type viewfinder (BVF-77/77CE), on the CA-905K/905F/905L *Flexible panning *Easy handling

*When the BKP-9057 is used, 'Picture in Picture' function of the seven-inch viewfinder does not work.

Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera

BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

Installation manual (1)

MS-59/60 board (1)

VF connector cable (1)

Harness (1)

Mounting screws (1)

Specifications

Dimensions:

368 (W) x 373 (H) x 534 (D) mm

(14 1/2 x 14 3/4 x 21 1/8 inches)

(with CA-905, without viewfinder)

Mass:

2.3 kg (5 lb 1 oz)

Connectors:

Viewfinder 20-pin (to camera)

Viewfinder 25-pin (to VF)

Panning degree:

BVP-E30P/WSP:

$\pm 30^\circ$

(After the BKP-9057 is moved 20 mm

backward and 20 mm upward, it will

become $\pm 90^\circ$)



BRBK-301 Analog/RGB Component Card

Allows an analog/RGB component output for the BRC-300/BRU-300

Applicable Models
BRC-300 3-CCD Color Video Camera
BRU-300 Optical Multiplex Unit



BRBK-302 SDI Card

Allows a SDI output for the BRC-300/BRU-300

Applicable Models
BRC-300 3-CCD Color Video Camera
BRU-300 Optical Multiplex Unit



BRBK-303 Optical Multiplex Card

Allows video output, external synch, and control for the BRC-300

Applicable Models
BRC-300 3-CCD Color Video Camera



BRBK-304 DV Card

Allows a DV output for the BRC-300/BRU-300

Applicable Models
BRC-300 3-CCD Color Video Camera



BRBK-H700 HD Optical Multiplex Card

HD Optical Multiplex Card for use with BRC-H700 HD 3CCD Colour Video Camera

Applicable Models
BRC-H700 HD 3CCD Colour Video Camera



BRU-300 Optical Multiplex Unit

Features

*The BRU-300 converts uncompressed digital data from the BRC-300 3CCD Color Video Camera (with the optional BRBK-303 Optical Multiplex Card) into various video outputs.

Applicable Models

BRC-300 3-CCD Color Video Camera

Supplied Accessories

AC power cable (1)
Terminal connector (1)
RS-232C cable (1)
Operating instructions (1)

Optional Accessories

RM-BR300 Remote Control Unit
BRBK-301 Analog/RGB Component Card
BRBK-302 SDI Card
CCFC-M100 Optical Fiber Cable



BRU-H700 HD Optical Multiplex Unit

Features

The BRU-H700 is an HD optical multiplex unit for use with the BRC-H700 HD 3CCD color video camera. Uncompressed digital data including external sync, camera control and audio signals can be transmitted via the BRU-H700 when used with the BRBK-H700 HD optical multiplex card installed in the BRC-H700.

Applicable Models

BRC-H700 HD 3CCD Colour Video Camera

Supplied Accessories

AC power cable (1)
Operating instructions (1)
RS-232C cable (1)
RS-422 terminal block connector (1)

Specifications

Optical fiber connector
Multi mode, LC-type Fiber Connector
Video output (Built-in)
Analog RGB, Analog Y/Pb/Pr
HFBK-HD1 : HD-SDI,
HFBK-SD1 : Down converted SD
(RGB, Y/Cb/Cr, Y/C, Composite, SDI x2)
Video output (With optional card : slot x2)
HFBK-XG1 : WXGA, XGA, VGA,
HFBK-TS1 : HDV

Camera control interface
RS-232C/RS-422 (VISCA protocol)
Sync systems
Internal/External
Multiple connection
Up to 7 Units
Operating temperature
0 to 40 degrees (32 to 104 °F)
Storage temperature
-20 to 60 degrees (-4 to 140 °F)
Power requirements
59.94 i : AC 100 to 120 V (50/60 Hz)
50 i : AC 220 to 240 V (50/60 Hz)

Power consumption
Max. 10 W (without optional cards)
Dimensions (WxHxD)
210 (W) x 240 (D) x 86 (H) mm
(8 3/8 x 9 1/2 x 3 1/2 inches)
Mass
2.7 kg (5 lb 15 oz)



BVF-20WCE 2-inch Type 16:9 B/W Viewfinder

Features

*2-inch type 16:9 widescreen B/W CRT viewfinder for the portable camera *High resolution-600 TV lines at center in both 16:9 and 4:3 modes *Diagonal size is 1.5-inch in 4:3 mode and 2.0-inch in 16:9 mode to ensure easy focusing even in 16:9 mode *The eye-piece is removable from the viewfinder to allow direct view of the CRT *Tally indicators on both front and rear of the viewfinder as well as on the screen of the viewfinder *Supplied with a new external microphone



Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera
DVW-970P Digital Betacam Camcorder
MSW-970P MPEG IMX Camcorder

Supplied Accessories

Operation manual (1)

Optional Accessories

BKW-401 Viewfinder Rotation Bracket

Specifications

General

Power requirements:
9.3 V DC
Power consumption:
2.3 W
Operating temperature:
-20°C to +45°C (-4°F to +113°F)
Storage temperature:
-20°C to +60°C (-4°F to +140°F)
External dimensions:
229(W) x 76(H) x 215(D) mm
(9 1/2 x 3 x 8 1/4 inches)
Mass:
580 g (1 lb 4 oz)

Performance

CRT:

2-inch monochrome
Horizontal resolution:
600 TV lines (at center)
Indicators:
REC/TALLY, BATT, VTR, SAVE, ! (warning)
Compensation for aberrations:
-3.6D to +0.4D

BVF-55CE 5-inch Type B/W Viewfinder (CCIR)

Features

*650 TV lines of resolution at center *High brightness—600NIT *Adjustable center position marker with ON/OFF switch *Panning and tilting facility *Easy installation and handling



Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

Connecting cables (12-pin - 20-pin) (1)
Slide shoe (1)
V wedge shoe attachment (1)
Screws (1)
Monitor hood for studio use (1)

Specifications

General

Operating temperature:
-10 to +50 °C (+14 to +122 °F)
Mass:
1.9 kg (4 lb 3 oz)

External dimensions:
191(W) x 188(H) x
291(D)mm
(7 5/8 x 7 1/2 x 11 1/2 inches)

Performance

Screen size:
73(H) x 97(W)mm underscan
(2 7/8 x 3 7/8 inches)
Power requirements:
DC 12 V
Power consumption:
10 W
Resolution:
650 TV lines at center
550 TV lines at corners
Picture distortion:
Less than 3%



BVF-77CE 7-inch Type B/W Viewfinder (CCIR)

Features

For use with BVP-E30 series cameras in conjunction with CA-905F large lens adaptor and BKP-9057 viewfinder saddle *Compact size with reduced height, light weight and low power consumption *Wide range of mechanical positioning and fixed center of gravity *Extremely high center resolution of 800 TV lines and wide peaking range contribute to a very crisp image and accurate focusing *Large, very easy to see tally lamps *Underscan display



Applicable Models

CA-905F plus BKP-9057

Specifications

General

Power requirements:

DC 10.5 to 17.0 V DC 12.0 (typical)

Power consumption:

23 W

Mass:

5.0 kg (11 lb)

External dimensions:

265(W) x 178(H) x 321(D)mm

(10 1/2 x 7 1/8 x 12 3/4 inches)

Performance

CRT:

7-inch 90-degree deflection

Screen size:

120(H) x 90(D) mm (normal)

(4 3/4 x 3 5/8 inches)

Tilting angle:

+60°/-40°

Brightness:

More than 500cd/m² (146fL)

Resolution:

800 lines (center)

600 lines (corner)

Geometric distortion:

Within 1.0%

Linearity:

Within 3%

Stability of raster size:

Within 2%

Controls:

Contrast/Brightness/Peaking

Peaking SW/Power

SW Scan Size SW

Aperture correction:

0 to 15 dB



CA-553 Camcorder Adaptor

Betacam 50-pin Interface Adaptor

Features

*Interface adaptor to connect cameras to BVV-5 Betacam SP dockable VTR



Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

Carrying handle (1)
Operation manual (1)
Maintenance manual (1)
M4 screw (1)
+B4x5 screw (1)
Plate (1)

Specifications

Input/output connector:
68-pin (1)
50-pin (1, for video/audio control signal, power transmission)
Power requirements:
DC 12 V
Power consumption:
0.3 W
Operating temperature:
-20 to +45°C (-40 to +113°F)
Storage temperature:
-20 to +60°C (-40 to +140°F)

Dimensions:

119 (W) x 179 (H) x 33 (D) mm
4 3/4 x 7 1/8 x 1 5/16 inches

Mass:

350 g (12.3 oz)

CA-590P Camera Adaptor

The CA-590P is a triax camera adaptor used to connect the BVP-E30P/E30WSP series cameras to the CCU-790P/590P Camera Control Unit.



Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera
CCU-590P Portable Camera Control Unit
CCU-790P Camera Control Unit

Supplied Accessories

Triax cable holder
Carrying belt
M3 x 6 screw
Operation manual

Optional Accessories

CCA-5 Cables 8-pin/8-pin Remote Control Cable

CA-905F Large Lens Adaptor (Fischer Type)

Features

*Adaptor to attach a large lens to portable cameras
 *Compact and lightweight *Easy lens attachment and detachment *Vertical/horizontal adjustment *Stabilizing mechanism for complete matching with the lens mount and the camera position *Combined use with 7-inch type viewfinder (with BKP-9057 viewfinder saddle) provides a wide range of applications

*CA-905 can not be used in the following combination of a viewfinder and a CCU —CA-905+BVF-7700/7700P and CCU-550A/550AP



Lens, camera, camera adaptor, viewfinder, VF saddle, tripod are optional

Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
 BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

Number plate (2)
 Cable clamp (2)
 Operation manual including BKP-9057 operation (1)
 Maintenance manual part 1 (1)

Specifications

General
 Power Consumption:
 90 W (w/ lens, VF and BKP-9057)
 Operation temperature:
 -20 to + 45 °C (-4 to 113°F)
 Storage temperature:
 -20 to + 55°C (-4 to 130°F)
 Mass:
 12 kg (26 lb 7 oz)
 Dimensions:
 368 x 327 x 534 mm
 (14 1/2 x 12 7/8 x 21 1/8 inches)

Connectors

CCU:
 Triax (Fischer type)
 Lens:
 12-pin (to camera)
 Lens:
 36-pin (to lens)
 Command:
 8-pin (to camera)

CA-D50 Camera Adaptor

Features

*Camera Adaptor for use with the CCU-D50/D50P Camera Control Unit. *Dockable to Sony DXC cameras that employ the 76-pin digital connector *Interfaces with 26-pin equipped Sony portable VTRs *Interfaces with the BKP-L551 Battery Adaptor with the appropriate service part.(*)

(*)Please contact your nearest Sony office.

Applicable Models

DXC-D50PH 3-chip CCD Portable Color Camera

DXC-D50PK 3-chip CCD Portable Color Camera

DXC-D50PL 3-chip CCD Portable Color Camera

DXC-D50WSPL 3-chip CCD Portable Color Camera

Supplied Accessories

Operation manual (1)

Optional Accessories

CCZ-A Cables 26-pin/26-pin Cable

Specifications

General

Power requirements:

DC 12 V

Power consumption:

Approx. 3.8 W

Operating temperature:

-10°C to 45°C (14°F to 113°F)

Storage temperature:

-20°C to 55°C (-4°F to 131°F)

Dimensions:

113 (W) × 183 (H) × 168 (D) mm

(7 1/4 × 4 1/2 × 6 5/8 inches)

Mass:

1.1 kg (2 lb 7 oz)

Input/Output connectors

Camera interface:

Pro 76-pin DIGITAL (1)

CCU/VTR/CMA:

Sony Z-type 26-pin (1)

SDI output:

BNC (1), 270 Mb/s, 0.8 Vp-p, 75 Ω

Genlock/Prompter output:

BNC (1), 1.0 Vp-p, 75 Ω

Earphone

Mini jack

Intercom:

Mini intercom jack

DC input:

XLR 4-pin (1), 10.5 to 17.0 V



CA-TX50P Camera Adaptor

The CA-TX50P is a triax camera adaptor for use with the DXC-D50P series portable video cameras for connection with the CCU-TX50P Triax Camera Control Unit.



Applicable Models

CCU-TX50P Camera Control Unit
DXC-D50PH 3-chip CCD Portable Colour Camera
DXC-D50PK 3-chip CCD Portable Colour Camera
DXC-D50PL 3-chip CCD Portable Colour Camera
DXC-D50WSPL 3-chip CCD Portable Colour Camera

Supplied Accessories

Operation manual (1)

Optional Accessories

AC-DN10 AC Adaptor/Charger
WRR-861A UHF Synthesized Diversity Tuner (AU)
WRR-862A UHF Synthesized Dual Diversity Tuner (AU)
DXF-51 5-inch Monochrome Viewfinder

Specifications

Power requirements:

DC 12 V (DC 180 V when supplied via the CCU connector)

Power consumption:

CA (Internal): 7.3 W
Max. 58 W (DC 12 V input)
Max. 67 W (DC 180 V input)

Operating temperature:

-10 °C to 45 °C (14 °F to 113 °F)

Storage temperature:

-20 °C to 60 °C (-4 °F to 140 °F)

Mass:

Approx. 2.5 kg (5 lb 5 oz)

Dimensions (W x H x D):

206 x 212 x 131 mm
(8 1/8 x 8 3/8 x 5 1/4 inches)

Signal inputs/outputs

CCU:

Triax (Fischer type)

CAMERA:

Pro 76-pin Digital

PROMPTER:

BNC type, 1.0 Vp-p, 75 Ω

RETURN:

BNC type, 1.0 Vp-p, 75 Ω

INTERCOM/PROGRAM:

XLR 5-pin (for Headset)

Input level: -60 dBs (dynamic)

Output level: ∞ to +12 dBs

AUDIO IN (CH-1/2):

XLR 3-pin (2), 600 Ω, balanced

Input level:

Mic in: -60 dB

Line in: -20 dB

DC IN:

XLR 4-pin, 10.5 V to 17 V

DC OUT:

4-pin, 10.5 V to 17 V, Max 1.5 A

EARPHONE

Mini jack

CA-WR855 Camera Adaptor

Features

*Allows a WRR-855A/855B to be mounted on Sony DSR-450WSP/400P DVCAM camcorders *Direct audio/power connection interfaces

Applicable Models

WRR-855B UHF Synthesized Diversity Tuner (6668U)



CAC-12 Camera Microphone Holder

Features

*Allows microphone direction to be adjusted * For attaching the ECM-647/670 or the C-74 condensor microphone to cameras and camcorders

Applicable Models

DSR-250P/1 DVCAM Camcorder

DSR-400PK DVCAM Camcorder

DSR-400PL DVCAM Camcorder

DSR-450WSPL DVCAM Camcorder

DXC-D50PH 3-chip CCD Portable Color Camera

DXC-D50PK 3-chip CCD Portable Color Camera

DXC-D50PL 3-chip CCD Portable Color Camera

DXC-D50WSPL 3-chip CCD Portable Color Camera



CAC-4 Chest Pad

Features

*Provides more stable camera operation *Attachable to the VCT-U14/C tripod adaptors directly

Specifications

Mass:

Approx. 185 g (7 oz)



CCU-590P Portable Camera Control Unit

Features

- *Wideband transmission (10 MHz for Y and 14.5 MHz for R-Y/B-Y) *Long-distance transmission - up to 1400 m via a 14.5 mm dia. cable *Three SDI or analog composite outputs *One component output (Y/R-Y/B-Y or G/R/B)
- *Four inputs for return video (RET-1/2: analogue composite, RET-3/4: SDI) *Built-in Ethernet interface (100Base-T) for future use *RM-B750 Remote Control Unit attachable on the front panel *Teleprompter support
- *Support for two-channel intercom systems (four-wire/RTS/Clearcom) *Two-channel program audio
- *Two-channel microphone system (two XLR connectors)



Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

AC power cord
AC power plug holder
4-pin connector
Number plate
Operation manual

Optional Accessories

CA-590P Camera Adaptor
CCA-5 Cables 8-pin/8-pin Remote Control Cable
RMM-301 Rack Mounting Bracket
RM-B750 Remote Control Unit

Specifications

General

Power requirements
AC 100 to 240 V, 50/60 Hz, maximum 1.8 A
Operating temperature
-10 to +40 °C (+14 to +104 °F)
Dimensions (W x H x D)
200 x 124 x 365 mm
(7 7/8 x 5 x 14 3/8 inches)
Mass
Approx. 5.5 kg (12 lb 2 oz)

Signal inputs

Reference
BNC (loop-through),
VBS/BS, 1.0 Vp-p, 75 Ω
Return (1, 2) ^(*)
BNC(loop-through), VBS, 1.0 Vp-p, 75 Ω
SDI return (3, 4)
BNC, SDI/VBS selectable
VBS: 1.0 Vp-p, 75 Ω, SDI: SMPTE 259M
Prompter ^(*)
BNC (loop-through), VBS, 1.0 Vp-p, 75 Ω

Signal outputs

VBS/SDI
BNC (x3), VBS/SDI selectable
VBS: 1.0 Vp-p, 75 Ω, SDI: SMPTE 259M
Analog component
BNC (x3 for 1 set), Y/R-Y/B-Y or
G/R/B switchable
Y: 1.0 Vp-p, 75 Ω, R-Y/B-Y: 525 m Vp-p,
75 Ω, R/G/B: 700 mVp-p, 75 Ω
PIX
BNC, 1.0 Vp-p, 75 Ω
WF
BNC, 1.0 Vp-p, 75 Ω, 700 mVp-p, 75 Ω
WF mode
4-pin
Audio
XLR-3-pin (x2), 0 dBu/-20 dBu, balanced
Sync
BNC, 0.3 Vp-p, 75 Ω

Camera input/output signals

Camera
Triax
Coax
BNC, 75 Ω
Remote
8-pin
Ethernet
IEEE 802.3 10BASE-T,
IEEE 802.3u 100BASE-TX
Intercom/tally/program
D-sub 25-pin
4W/RTS
Tally: DC 24 V, TTL level or contact
selectable
Microphone remote
D-sub 15-pin
Intercom (front)
XLR-5-pin

CCU-790P Portable Camera Control Unit

Features

- *Wideband transmission (10 MHz for Y and 4.5 MHz for R-Y/B-Y) *Long-distance transmission - up to 2000 m via a 4.5 mm dia. cable *Three SDI or analog composite outputs *Up to three additional SDI outputs (*)
- *One component output (Y/R-Y/B-Y or G/R/B)
- *Four inputs for return video (RET-1/2: analogue composite, RET-3/4: SDI) *Built-in Ethernet interface (100Base-T) for future use *Teleprompter support
- *Support for two-channel intercom systems (four-wire/RTS/Clearcom) *Two-channel program audio
- *Two-channel microphone system (two XLR connectors)



Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

AC power cord
AC power plug holder
4-pin connector
Number plate
Operation manual

Optional Accessories

CA-590P Camera Adaptor
CCA-5 Cables 8-pin/8-pin Remote Control Cable

Specifications

General

Power requirements
AC 110 to 120 V/220 to 240 V, 50/60 Hz
Operating temperature
0 to +45 °C (+32 to +113 °F)
Dimensions (W x H x D)
424 x 133 x 394 mm
(16 3/4 x 5 1/4 x 15 5/8 inches)
Mass
Approx. 12 kg (26 lb 7 oz)

Signal inputs

Reference
BNC (loop-through), VBS/BS,
1.0 Vp-p, 75 Ω
Return (1, 2) ^(*)
BNC(loop-through), VBS, 1.0 Vp-p, 75 Ω
SDI return (3, 4)
BNC, SDI/VBS selectable
VBS: 1.0 Vp-p, 75 Ω SDI: SMPTE 259M
Prompter (*1)
BNC (loop-through), VBS, 1.0 Vp-p, 75 Ω

Signal outputs

VBS/SDI
BNC (x3), VBS/SDI selectable
VBS: 1.0 Vp-p, 75 Ω SDI: SMPTE 259M
SDI
BNC (x3) ^(*)
Analog component
BNC (x3 for 1 set), Y/R-Y/B-Y or
G/R/B switchable
Y: 1.0 Vp-p, 75 Ω,
R-Y/B-Y: 525 mVp-p, 75 Ω,
R/G/B: 700 mVp-p, 75 Ω
PIX
BNC, 1.0 Vp-p, 75 Ω
WF
BNC, 1.0 Vp-p, 75 Ω, 700 mVp-p, 75 Ω
WF mode
4-pin
Audio
XLR-3-pin (x2), 0 dBu/-20 dBu, balanced
Sync
BNC, 0.3 Vp-p, 75 Ω
Camera input/output signals
Camera
Triax
Coax
BNC, 75 Ω
Remote
8-pin
Ethernet
IEEE 802.3 10BASE-T,
IEEE 802.3u 100BASE-TX
Intercome/tally/program
D-sub 25-pin
4W/RTS
Tally: DC 24 V, TTL
level or contact selectable
Microphone remote
D-sub 15-pin
Intercom (front)
XLR-5-pin

CCU-D50P Camera Control Unit

Features

*Interfaces with Sony DXC-D50P Series digital cameras via its associated CA-D50 Camera Adaptor. *The output of the CA-D50 Camera Adaptor is transferred to the CCU-D50P Camera Control Unit as a component digital SDI(*1) signal via a Sony CCZ-A 26-pin cable up to 75 m long. *The distance between the CA-D50 Camera Adaptor and CCU-D50P Camera Control Unit can be extended to a maximum 200 m by providing a separate low loss coaxial video cable to carry the SDI signal between the two units. * Outputs analog composite and one of the following: component digital SDI, analog component (Y/R-Y/B-Y or RGB), or S-video(*2). * Flexible intercom connectivity allows the interfacing of 2-wire or 4-wire systems. *Green tally indication included for use in mid to large-scale camera operations. *The RCP-D50 can be connected to the CCU-D50P.

(*1) Embedded audio is not supported. (*2) Available output signals depend on the connected camera or camcorder.



Applicable Models

DXC-D50PH 3-chip CCD Portable Color Camera
DXC-D50PK 3-chip CCD Portable Color Camera
DXC-D50PL 3-chip CCD Portable Color Camera
DXC-D50WSPL 3-chip CCD Portable Color Camera

Supplied Accessories

AC power cord (1)
Rack mount adaptor (2)
Rack mount screw (4)
Tally indication segment (1)
Operation manual (1)

Optional Accessories

RCP-D50 Remote Control Panel
RCP-D51 Remote Control Panel
CCZ-A Cables 26-pin/26-pin Cable

Specifications

General

Power requirements:
AC 200/240 V, 50/60 Hz
Power consumption:
Approx. 0.8 A
Operating temperature:
5°C to 40°C (41°F to 104°F)
Storage temperature:
-20°C to 55°C (-4°F to 131°F)
Dimensions:
424 (W) × 88 (H) × 283 (D) mm
(16 3/4 × 3 1/2 × 11 1/4 inches)
Mass:
6.3 kg (13 lb 14 oz)

Input/Output connectors

VBS output:
BNC (2) 1.0 Vp-p, 75 Ω

R/G/B output:

BNC (1) 0.7 Vp-p, 75 Ω

Y/R-Y/B-Y output:

BNC (1), Y: 1.0 Vp-p, 75 Ω, R-Y/B-Y: 0.525 Vp-p, 75 Ω

Y/C output:

BNC (1) Y: 1.0 Vp-p, 75 Ω, C: 0.3 Vp-p, 75 Ω

SYNC output:

BNC (1), 0.3 Vp-p, 75 Ω

SDI output:

BNC (2), 270 Mb/s, 0.8 Vp-p, 75 Ω

S-Video output:

DIN 4-pin (1), Y: 1.0 Vp-p, 75 Ω, C: 0.3 Vp-p, 75 Ω

Monitor output:

BNC (1) VBS:1.0Vp-p, 75Ω

Mic output:

XLR 3-pin (1), 600Ω

Genlock input:

BNC (1), loop-through, VBS or BBS, 1.0 Vp-p, 75Ω

SDI input:

BNC (1), 270 Mb/s, 0.8 Vp-p, 75 Ω

Return Video input:

BNC (1), loop-through, 1.0 Vp-p, 75 Ω

Prompter Video input:

BNC (1), loop-through, 1.0 Vp-p, 75 Ω

Camera:

Sony Z-type 26-pin (1)

Intercom/Tally:

D-sub 15-pin, 4W/2W selectable, R/G Tally, contact

Remote:

10-pin (1)

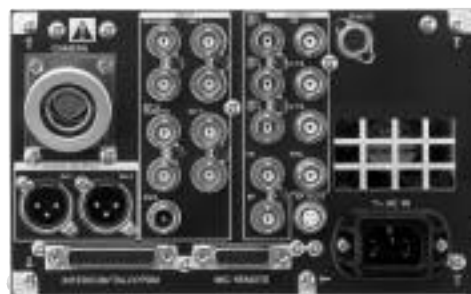
Control functions

Iris (auto/manual), White Balance (auto/manual/preset), Black balance (auto/manual/preset), Gain select (low/mid/high), R/B White, R/B Black, Master Black, Sub-carrier Phase, Horizontal Phase, Output Mode (color bar/camera), Knee Point (auto/manual), Detail Level, Master Gamma, Tally/Intercom, Shutter Speed, Clear scan, ATW

CCU-TX50P Camera Control Unit

Features

*Compact design - half rack width and 3U height *High quality data transmission *Long distance transmission - up to 1500 meters via 14.5 mm cable *In addition to the component/RGB switchable output, three outputs switchable between composite video and SDI are provided *Component video output (selectable from Y/R-Y/B-Y and R/G/B) *Three return video inputs (One input is shared with prompter input) *Colour teleprompter compatible *Red/Green tally indication *Support for major intercom systems (Four-wire/RTS/Clear-com) *Program audio input *Two-channel microphone outputs (two XLR connectors)



Applicable Models

DXC-D50PH 3-chip CCD Portable Colour Camera
DXC-D50PK 3-chip CCD Portable Colour Camera
DXC-D50PL 3-chip CCD Portable Colour Camera
DXC-D50WSPL 3-chip CCD Portable Colour Camera
CA-TX50P Camera Adaptor

Supplied Accessories

AC power cord (1)
AC power plug holder (1)
Plug holder for AC power cord (1)
Rack mount adaptor (2)
Rack mount screw (4)
Number plate (1)
Operation manual (1)

Optional Accessories

CA-TX50P Camera Adaptor
RCP-D50 Remote Control Panel (Joystick Type)
RCP-D51 Remote Control Panel (Dial Control Type)
RMM-301 Rack Mounting Bracket

Specifications

Power requirements:
AC 100 to 240 V, 50/60 Hz
Power consumption:
130 VA (measured at maximum load at camera side 12 V, 4.8 A, cable length 300 m)
Peak inrush current
(1) Power ON, current probe method: 50 A (240 V)
(2) Hot switching inrush current, measured in accordance with European standard

DN55103-1: 10 A (230 W)
Cable length:
Max. 750 m (8.5 mm dia.)
Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:
-20 °C to 55 °C (-4 °F to 131 °F)
Mass:
Approx. 5.5 kg (12 lb 2 oz)
Dimensions (W x H x D):
200 x 124 x 365 mm (8 x 5 x 13 7/8 inches)
Signal inputs
REFERENCE: BNC type, loop-through, VBS/BS, 1.0 Vp-p, 75 Ω
RETURN VIDEO 1, 2, 3 (*1): BNC type, loop-through, 1.0 Vp-p, 75 Ω
PROMPTER VIDEO (*1): BNC type, loop-through, 1.0 Vp-p, 75 Ω
Signal outputs
VBS 1, 2, 3 (*2): BNC type, 1.0 Vp-p, 75 Ω
SDI 1, 2, 3 (*2): BNC type, 270 Mb/s, 0.8 Vp-p, 75 Ω
Y/R-Y/B-Y (*3): BNC type, Y: 1.0 Vp-p, 75 Ω, R-Y/B-Y: 525 mVp-p, 75 Ω
R/G/B (*3): BNC type, 0.7 Vp-p, 75 Ω
SYNC: BNC type, 0.3 Vp-p, 75 Ω
PIX: BNC type, VBS, 1.0 Vp-p, 75 Ω
WF: BNC type, 700 mVp-p, 75 Ω
Encoded output: 1.0 Vp-p, 75 Ω
WF MODE: 4-pin
AUDIO: XLR 3-pin, 0 dBu/-20 dBu, balanced, 2 channels
Camera control inputs/outputs
CAMERA: Triax (Fischer type)
COAX: BNC type, 75 Ω
REMOTE: 10-pin, multi connector

INTERCOM/TALLY/PGM: D-sub 25-pin, 4W/RTS/Clear-com selectable
TALLY: DC 24 V, TTL level or contact selectable
MIC REMOTE: D-sub 15-pin
INCOM (on the front panel): XLR 5-pin

(*1) The same connector is shared for return-3 and teleprompter.
(*2) The same connector is shared for composite and SDI.
(*3) The same connector is shared for component and R/G/B.

CMA-D2 Camera Adaptor

Camera adaptor for DXC-990/390

Features

- *Supplies DC power with a CCDC cable to cameras
- *Transmits DC power and video/sync signals between the camera and the adaptor with a CCMC 12-pin cable
- *Maximum cable length: 100 m with CCDC-100A cable/ 25 m with CCMC-12P25 cable *19-inch EIA standard rack mountable



Applicable Models

DXC-390 3-CCD Color Video Camera
DXC-990 3-CCD Color Video Camera

Supplied Accessories

AC power cord (1)
Operation manual (1)

Specifications

Connectors:

- CAMERA (12-pin MULTI)
- CAMERA (4-pin DIN)
- VIDEO OUT (BNC)
- S VIDEO OUT (Mini DIN 4-pin)
- GEN-LOCK IN (BNC)

DC out:

13 V, 1.3 A

Power requirements:

AC 120 V, 50/60 Hz

Power consumption:

23 W

Dimensions:

210 (W) × 50 (H) × 200 (D) mm
(8 3/8 × 2 × 7 7/8 inches)

Mass:

1.1 kg (2 lb 7 oz)

CMA-D2MDCE Camera Adaptor

Camera adaptor for DXC-990P/390P

Features

- *Supplies DC power with a CCDC cable to cameras
- *Transmits DC power and video/sync signals between the camera and the adaptor with a CCMC 12-pin cable
- *Maximum cable length: 100 m with CCDC-100A cable/ 25 m with CCMC-12P25 cable *19-inch EIA standard rack mountable
- *Complies with medical safety standard



Applicable Models

DXC-990P 3-CCD Color Video Camera

Supplied Accessories

AC power cord (1)

Operation manual (1)

Specifications

Connectors:

- CAMERA (12-pin MULTI)
- CAMERA (4-pin DIN)
- VIDEO OUT (BNC)
- S VIDEO OUT (Mini DIN 4-pin)
- GEN-LOCK IN (BNC)

DC out:

13 V, 1.3 A

Power requirements:

AC 100 to 240 V, 50/60 Hz

Power consumption:

24.5 W

Dimensions:

210 (W) × 50 (H) × 200 (D) mm

(8 3/8 × 2 × 7 7/8 inches)

Mass:

1.1 kg (2 lb 7 oz)

CMA-D3CE Camera Adaptor

Features

*Supplies DC power and transmits video/sync signal between the adaptor and the DXC-390P with CCZ-A cable and CCMC-3MZ cable *Connects with optional RM-C950/8 remote control unit *AC IN/DC IN

Applicable Models

DXC-390P 3-CCD Color Video Camera

DXC-990P 3-CCD Color Video Camera

Supplied Accessories

Operation manual (1)

AC cable (1)

Specifications

Connectors

CAMERA (26-pin MULTI)

VIDEO OUT (BNC)

SYNC IN / OUT (BNC)

TRIG INPUT (BNC)

W. E OUTPUT (BNC)

REMOTE (mini DIN 8 pin)

Power requirements:

AC 100-240 V or

DC (10.5 to 15.0 V)

Dimensions:

210 (W) × 44 (H) × 210 (D) mm



CNU-700 Camera Command Network Unit

Features

*High-speed data transmission rates — more than 500 kb/s between CNU and MSU/RCP/CCU and 35 kb/s between camera head and CCU *Expandable system configuration — up to 12 cameras with one CNU-700 and one BKP-7930 installed *Character display function in monochrome *Bypass facility to maintain communication between the CCUs and RCPs in the event of a CNU malfunction or power loss



Supplied Accessories

AC power cord (1)
Plug holder for the AC power cord (1)
Operation manual (1)
Maintenance manual (1)

Optional Boards

BKP-7930 Expansion Board
BKP-7933 S-Bus Interface Board



Specifications

General

Power requirements:

AC 100 to 120 V, 50/60 Hz (For USA and Canada)
AC 220 to 240 V, 50/60 Hz (For other countries)

Power consumption:

4.0 VA max.

Operating temperature:

0 to +45 °C (+32 to +113 °F)

Mass:

9.5 kg (20 lb 15 oz)

Dimensions:

424(W) x 132(H) x 400(D) mm
(16 3/4 x 5 1/4 x 15 3/4 inches)

Input/output connectors

CCU 1 through 6:

8-pin multiconnector (1 each)

RCP 1 through 6:

8-pin multiconnector (1 each)

MSU:

8-pin multiconnector (1)

VCS:

8-pin multiconnector (1)

AUX 1 and 2:

8-pin multiconnector (1 each)

Character:

BNC type (2) video: 0.7 Vp-p, sync: 0.3 Vp-p

Reference:

BNC type (2) 0.3 Vp-p with loop-through output

RS-232C:

D-sub 9-pin (3)

AC input:

3-pin (1)

DXF-51 5-inch Monochrome Viewfinder

Features

- *High horizontal resolution of 650 TV lines
- *Stable video image
- *Bright and clear color image
- *Under Scanning capability
- *Can operate either on EIA and CCIR signals systems with automatic selection
- *16:9/4:3 Automatic Aspect Ratio Selection
- *The viewfinder aspect ratio of the DXF-51 is automatically switched between 16:9 and 4:3
- *Two red REC tally lamps
- *Green Tally Lamp which can be used as a second tally lamp for CCU operations
- *20-pin connector
- *DIN 8-pin connector
- *+/- 40 degrees of tilting is possible
- *+/- 90 degrees of panning is possible
- *Rugged and compact body



Applicable Models

DSR-400PK DVCAM Camcorder
 DSR-400PL DVCAM Camcorder
 DSR-450WSPL DVCAM Camcorder
 DXC-D50PH 3-chip CCD Portable Color Camera
 DXC-D50PK 3-chip CCD Portable Color Camera
 DXC-D50PL 3-chip CCD Portable Color Camera
 DXC-D50WSPL 3-chip CCD Portable Color Camera

Supplied Accessories

Hood (1)
 Operation manual (1)
 20-pin Cable (1)

Specifications

Picture tube:

5-inch monochrome, 70° deflection

Scanning system:

2:1 interlace, 625/50 or 525/59.94 switchable

Horizontal resolution:

650 TV lines (center)

Camera connector:

20-pin or DIN 8-pin connector

Power requirements:

DC 12 V +5.0/-1.5 V (supplied from a camera)

Power consumption:

11 W

Operating temperature:

0°C to 40°C (32°F to 104°F)

Mass:

2.4 kg (5 lb 5 oz) with stand and hood

Dimensions:

202 (H) × 199 (W) × 217 (D) mm
 (8 × 7 7/8 × 8 5/8 inches)

including projecting parts and controls

202 (H) × 199 (W) × 289 (D) mm
 (8 × 7 7/8 × 11 1/2 inches)
 with stand and hood

HDVF-C30W Multi-format HD Colour LCD Viewfinder

Features

*For use with the HDC-1500 and HDW-F900/750P/730S

*The high quality 2.7-inch type TFT color LCD panel provides a high resolution of 960 pixels horizontally (equivalent to 540 TV lines) x 540 pixels vertically

*Accommodates multiple frame rates

*The 2x magnification function simplifies focus operation, especially when prime lenses are used *Gray scale signals can be generated, allowing camera operators to easily adjust exposure to the appropriate level

*A detachable eyepiece design allows the user to directly view the LCD *Light weight construction *Very low power consumption



Applicable Models

HDW-730S HDCAM Camcorder

HDW-750P HDCAM Camcorder

HDW-F900H HDCAM Camcorder

HDC-1500 HD Portable Camera

Supplied Accessories

Operation manual (1)

Connecting cable (1)

Specifications

General

Power supply:

DC 10.5 to 17.0 V (supplied by the camera)

Power consumption:

5.2 W

Operating temperature:

0 °C to 45 °C (32 °F to 115 °F)

Storage temperature:

- 20 °C to 60 °C (- 4 °F to 140 °F)

Mass:

850 g (1 lb 14 oz)

LCD

2.7-inch type color TFT screen

Image display area dimensions:

59.04 (H) x 33.21 (V) mm (2 3/8 x 1 5/16 inches)

Performance

Brightness:

300 cd/m²

Resolution:

500 or more lines

Supported formats:

Effective scanning lines/Format/Horizontal scanning frequency/Vertical scanning frequency

1080/23.98PsF/26.97 kHz/47.95 Hz

1080/24PsF/27 kHz/48 Hz

1080/25PsF/28.13 kHz/50 Hz

1080/29.97PsF/33.72 kHz/59.94 Hz

1080/30PsF/33.75 kHz/60 Hz

1080/50i/28.13 kHz/50 Hz

1080/59.94i/33.72 kHz/59.94 Hz

1080/60i/33.75 kHz/60 Hz

Color temperature:

6500 K

Indicators:

R TALLY/G TALLY/BATT/ MAG/SAVE/I

Input signals:

Pb, Pr: 0.7 Vp-p, asynchronous, 75 Ω terminated

Y: 1.0 Vp-p, synchronous, 75 Ω terminated

HFBK-HD1 HD SDI Output Board

The HFBK-HD1 is an HD SDI Output Board for the HFU-X310 Optical Interface Unit which is used with the HDC-X310/X310K HD multi-purpose camera.

Applicable Models

HFU-X310	HD Optical Fiber Interface Unit
HDC-X310	HD Multi-purpose Camera
HDC-X310K	HD Multi-purpose Camera
BRC-H700	HD 3CCD Color Video Camera

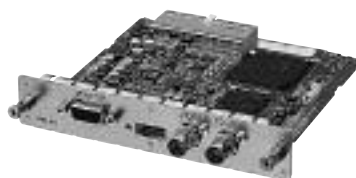


HFBK-SD1 SDI Output Board

The HFBK-SD1 is an SDI Output Board for the HFU-X310 Optical Interface Unit which is used with the HDC-X310/X310K HD multi-purpose camera.

Applicable Models

HFU-X310	HD Optical Fiber Interface Unit
HDC-X310	HD Multi-purpose Camera
HDC-X310K	HD Multi-purpose Camera
BRC-H700	HD 3CCD Color Video Camera



HFBK-TS1 iLINK (HDV) Output Board

The HFBK-TS1 is an i.LINK (HDV) Output Board for the HFU-X310 Optical Interface Unit which is used with the HDC-X310/X310K HD multi-purpose camera.

Applicable Models

HFU-X310	HD Optical Fiber Interface Unit
HDC-X310	HD Multi-purpose Camera
HDC-X310K	HD Multi-purpose Camera
BRC-H700	HD 3CCD Color Video Camera



HFBK-XG1 XGA Output Board

The HFBK-XG1 is an XGA Output Board for the HFU-X310 Optical Interface Unit which is used with the HDC-X310/X310K HD multi-purpose camera.

Applicable Models

HFU-X310	HD Optical Fiber Interface Unit
HDC-X310	HD Multi-purpose Camera
BRC-H700	HD 3CCD Color Video Camera
HDC-X310K	HD Multi-purpose Camera



HKCU-1001 SD Analog Interface Unit

The HKCU-1001 is an interface expansion option board for the HDCU-1000/HDCU-1500. It provides two analog NTSC or PAL VBS signal outputs, WFM output, and a monitor output.

Applicable Models

HDCU-1500 Camera Control Unit
HDCU-1000 Camera Control Unit

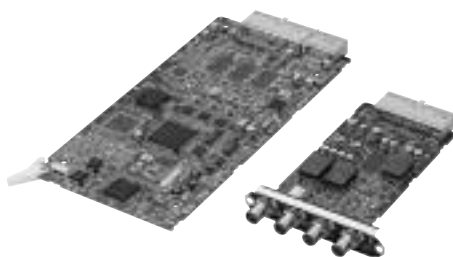
Specifications

VBS output

BNC type (2)

Analog composite monitor output

BNC type: WF (1), PIX (1)

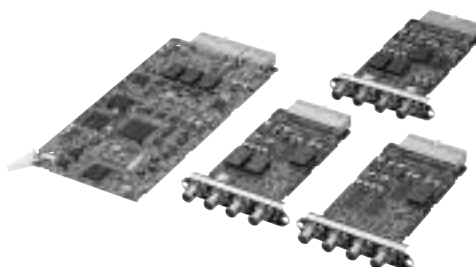


HKCU-1003 Multi Interface Unit

The HKCU-1003 is an interface expansion option board for the HDCU-1000/HDCU-1500. It consists of three types of interface board and provides: - Frame reference input and output to lock 2-3 pull-down sequence - Two analog NTSC or PAL VBS signal outputs - Analog NTSC or PAL VBS and analog component R/G/B or Y/R-Y/B-Y outputs

Applicable Models

HDCU-1500 Camera Control Unit
HDCU-1000 Camera Control Unit

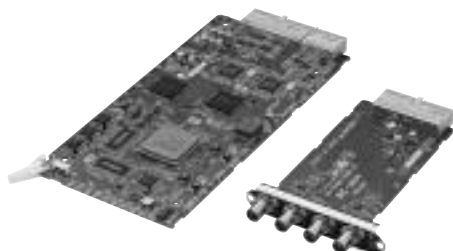


HKCU-1005 HD/SD Expansion Unit

The HKCU-1005 is an interface expansion option board for the HDCU-1000/HDCU-1500. It provides four HD-SDI or SD-SDI outputs.

Applicable Models

HDCU-1500 Camera Control Unit
HDCU-1000 Camera Control Unit



LC-DS300SFT Soft Carrying Case

Features

*Direct pack with accessories attached: Battery pack, Microphone, Viewfinder and Zoom lens. *Easy to pack a variety of accessories such as Battery charger and other items.



Applicable Models

DSR-400PK DVCAM Camcorder

DSR-400PL DVCAM Camcorder

DSR-450WSPL DVCAM Camcorder

Specifications

Mass:

3.5 kg (7 lb 11 oz)

Dimensions (w/h/d):

220 x 300 x 620 mm

(without projection)

(8 3/4 x 11 7/8 x 24 1/2 inches)

LC-H300 Hard Carrying Case

Applicable Models

DSR-450WSPL DVCAM Camcorder

DSR-400PL DVCAM Camcorder

DSR-400PK DVCAM Camcorder



LC-HB330 Hard Carrying Case

Applicable Models

DXC-D50 Series Portable Colour Camera

LCR-1 Camera Rain Cover

Features

*Transparent material used to operate camera and VTR switches with the LCR-1/1 on

Applicable Models

BVP-9500WS Super Motion Video Camera
BVP-9500WSP Super Motion Video Camera
DSR-400PK DVCAM Camcorder
DSR-400PL DVCAM Camcorder
DSR-450WSPL DVCAM Camcorder
DXC-D50H 3-chip CCD Portable Color Camera
DXC-D50K 3-chip CCD Portable Color Camera
DXC-D50L 3-chip CCD Portable Color Camera
DXC-D50PH 3-chip CCD Portable Color Camera
DXC-D50PK 3-chip CCD Portable Color Camera
DXC-D50PL 3-chip CCD Portable Color Camera
DXC-D50WSL 3-chip CCD Portable Color Camera
DXC-D50WSPL 3-chip CCD Portable Color Camera
PDW-510P XDCAM Camcorder
PDW-530P XDCAM Camcorder

Specifications

Mass:
260 g (9 oz)



LO-23 Flexible Cable Unit

Features

*Servo zooming and manual focusing for Fujinon Lens, such as VCL-916 BYA and VCL-714BXA

Specifications

Cable length:
1 m (3.3 ft)
Mass:
1.2 kg (2 lb 10 oz)



LO-26 Flexible Cable Unit

Features

*Servo zooming and manual focusing for Canon Lenses, such as VCL-918BY

Specifications

Cable length:
1 m (3.3 ft)
Mass:
1.1 kg (2 lb 7 oz)



MSU-900 Master Setup Unit

Features

- *Central control of camera parameters for the entire camera system
- *Picture and waveform monitor switching
- Precise picture adjustment
- *Built-in 6.5-inch (*) type LCD display for clear viewing of adjustment parameters during operation
- *Memory Stick slot for storing/recalling files
- *Built-in Ethernet interface (100Base-T)

Applicable Models

- HDCU-1000 Camera Control Unit
- HDCU-1500 Camera Control Unit
- HDC-1000 Multi-format HD Camera
- HDC-1500 Multi-format HD Camera
- DVW-970-P Digital Betacam Camcorder
- HDC-X300 HD Multi-purpose Camera
- HDC-X300K HD Multi-purpose Camera
- BVP-E30WSP 3-chip CCD Portable Color Camera
- BVP-E30P 3-chip CCD Portable Color Camera
- HDC-X310 HD Multi-purpose Camera
- HDC-X310K HD Multi-purpose Camera

Optional Accessories

- CCA-5 Cables 8-pin/8-pin Remote Control Cable

Specifications

General

Power requirements

AC 100 to 240 V, 50/60 Hz

Current consumption

0.35 A

Operating temperature

+5 to +40 °C (+41 to +104 °F)

Maximum cable length

200 m (656 feet)

Mass

Approx. 4.5 kg (9 lb 14 oz)

Dimensions (W x H x D)

482 x 67 x 222 mm (19 x 2 3/4 x 8 3/4 inches)

Inputs/outputs

Remote

CCU/CNU: 8-pin (1)

AUX: 8-pin (1)

I/O port

50-pin (1)

Ethernet

6-pin (1)

AC input

3-pin (1)



MSU-950 Master Setup Unit

Features

- *Central control of camera parameters for the entire camera system
- *Picture and waveform monitor switching
- *Precise picture adjustment
- *Built-in 6.5-inch (*) type LCD display for clear viewing of adjustment parameters during operation
- *Memory Stick slot for storing/recalling files
- *Built-in Ethernet interface (100Base-T)

Applicable Models

- HDCU-1000 Camera Control Unit
- HDCU-1500 Camera Control Unit
- HDC-1000 Multi-format HD Camera
- HDC-1500 Multi-format HD Camera
- DVW-970P Digital Betacam Camcorder
- HDC-X300 HD Multi-purpose Camera
- HDC-X300K HD Multi-purpose Camera
- BVP-E30WSP 3-chip CCD Portable Color Camera
- BVP-E30P 3-chip CCD Portable Color Camera
- HDC-X310 HD Multi-purpose Camera
- HDC-X310K HD Multi-purpose Camera

Optional Accessories

- CCA-5 Cables 8-pin/8-pin Remote Control Cable

Specifications

General

Power requirements

AC 100 to 240 V, 50/60 Hz

Current consumption

0.35 A

Operating temperature

+5 to +40 °C (+41 to +104 °F)

Maximum cable length

200 m (656 feet)

Mass

Approx. 3.7 kg (8 lb 2 oz)

Dimensions (W x H x D)

204 x 354 x 67 mm (8 1/8 x 14 x 2 3/4 inches)

Inputs/outputs

Remote

CCU/CNU: 8-pin (1)

AUX: 8-pin (1)

I/O port

50-pin (1)

Ethernet

6-pin (1)

AC input

3-pin (1)



RCP-700 Remote Control Panel (Joystick Type)

Features

*Controls Painting (black and white), Master Black and Iris
Control menus for daily operation *Basically used as a sub control panel to support MSU-700A/750/A or RCP-740/741/730/731/720/721 in combination with MSU-700A/750/A *Up to six units of RCP-700/701 can be mounted on a 19-inch rack drawer

Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

Plug, 6-pin Male (1)

Specifications

Connectors

Remote:
CNU/CCU (8-pin)

Preview:
6-pin

General

Mass:
1.0 kg (2 lb 3 oz)

Dimensions:
68(W) x 221(H) x 127(D) mm
(2 3/4 x 8 3/4 x 5 inches)



RCP-701 Remote Control Panel (Dial Control Type)

Features

*Controls Painting (black and white), Master Black and Iris
Control menus for daily operation *Basically used as a sub control panel to support MSU-700A/750 or RCP-740/741/730/731/720/721 in combination with MSU-700A/750 *Up to six units of RCP-700/701 can be mounted on a 19-inch rack drawer

Applicable Models

BVP-E30WSP 3-chip CCD Portable Color Camera
BVP-E30P 3-chip CCD Portable Color Camera

Optional Accessories

CCA-5 Cables 8-pin/8-pin Remote Control Cable

Supplied Accessories

Plug, 6-pin Male

Specifications

Connectors

Remote:
CNU/CCU (8-pin)

Preview:
6-pin

General

Mass:
0.9 kg (2 lb)

Dimensions:
68(W) x 221(H) x 83(D) mm
(2 3/4 x 8 3/4 x 3 1/4 inches)



RCP-750 Remote Control Panel (Joystick type)

Features

*Small size with full paint control *LCD panel for fully accessible menu system *Color LCD panel can provide full painting control items for camera *Memory Stick operation (Up to 64 MB type can be used) *Parallel control function with MSU-700A/750/A is available

Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera
HDC-1000 Studio Camera
HDC-1500 Portable Camera
HDC-X300 HD Multi-purpose Camera
HDC-X300K HD Multi-purpose Camera
WLL-RX55 Wireless Camera Receiver

Mass:

1.5 kg (3 lb 5 oz)

Dimensions:

102 mm x 354 mm x 126.5 mm
(4 1/8 x 14 x 5 inches)

Inputs/Outputs

Remote:

CCU/CNU: 8-pin x 1

AUX: 8-pin x 1

EXT I/O:

9-pin x 1

Optional Accessories

CCA-5 Cables 8-pin/8-pin Remote Control Cable

Specifications

General

Power requirements:

DC 10.5 to 35 V

Power consumption:

4 W max.

Maximum cable length:

200 m (656 feet) with CCU/HDCU connected

Operating temperature:

5°C to 40 °C (41°F to 104°F)



RCP-751 Remote Control Panel (Dial control type)

Features

*Small size with full paint control *LCD panel for fully accessible menu system *Color LCD panel can provide full painting control items for camera *Memory Stick operation (Up to 64 MB type can be used) *Parallel control function with MSU-700A/750/A is available

Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera
HDC-1000 Studio Camera
HDC-1500 Portable Camera
HDC-X300 HD Multi-purpose Camera
HDC-X300K HD Multi-purpose Camera
WLL-RX55 Wireless Camera Receiver

Mass:

1.3 kg (2 lb 14 oz)

Dimensions:

102 mm x 354 mm x 86.5 mm
(4 1/8 x 14 x 3 1/2 inches)

Inputs/Outputs

Remote:

CCU/CNU: 8-pin x 1

AUX: 8-pin x 1

EXT I/O:

9-pin x 1

Optional Accessories

CCA-5 Cables 8-pin/8-pin Remote Control Cable

Specifications

General

Power requirements:

DC 10.5 to 35 V

Power consumption:

4 W max.

Maximum cable length:

200 m (656 feet) with CCU/HDCU connected

Operating temperature:

5°C to 40 °C (41°F to 104°F)



RCP-D50 Remote Control Panel (Joystick Type)

Features

- *Covers the complete range of camera control functions
- *Provides Joystick operation
- *3.5-inch (*1) LCD screen with touch panel function
- *Allows incoming camera image to be monitored on LCD panel (*2)
- *Memory Stick system — various scene files can be stored on/recalled from the Memory Stick media and loaded to a different

RCP-D50/D51 or DXC-D50

(*1) Viewable area measured diagonally. (*2) When used with a CCU-TX7/TX7P camera control unit, please ask Sony representative.

Applicable Models

DXC-D50PH 3-chip CCD Portable Color Camera
 DXC-D50PK 3-chip CCD Portable Color Camera
 DXC-D50PL 3-chip CCD Portable Color Camera
 DXC-D50WSPL 3-chip CCD Portable Color Camera

Supplied Accessories

CCA-7-5 Connecting Cable (5 m) (1)
 Operation Manual (1)
 Screws and Washers (2)
 Number Plate (1)

Optional Accessories

CCA-7 Cables 10-pin/10-pin Cable

Specifications

Power requirements:
 10 to 17 V
 (supplied from camera or CCU)
 Power consumption:
 4.0 W
 Operating temperature:
 +5°C to 40°C (41°F to 104°F)
 Storage temperature:
 -20°C to 55°C (-4°F to 131°F)
 Dimensions:
 102 (W) x 74 (D) x 354 (D) mm
 (4 1/8 x 3 x 14 inches)
 Mass:
 Approx. 1.5 kg (3 lb 5 oz)



RCP-D51 Remote Control Panel (Dial Control Type)

Features

- *Covers the complete range of camera control functions
- *Provides Encoder operation
- *3.5-inch (*1) LCD screen with touch panel function
- *Allows incoming camera image to be monitored on LCD panel (*2)
- *Memory Stick system — various scene files can be stored on/recalled from the Memory Stick media and loaded to a different

RCP-D50/D51 or DXC-D50

(*1) Viewable area measured diagonally. (*2) When used with a CCU-TX7/TX7P camera control unit, please ask Sony representative.

Applicable Models

DXC-D50PH 3-chip CCD Portable Color Camera
 DXC-D50PK 3-chip CCD Portable Color Camera
 DXC-D50PL 3-chip CCD Portable Color Camera
 DXC-D50WSPL 3-chip CCD Portable Color Camera

Supplied Accessories

CCA-7-5 Connecting Cable (5 m) (1)
 Operation Manual (1)
 Screws and Washers (2)
 Number Plate (1)

Optional Accessories

CCA-7 Cables 10-pin/10-pin Cable

Specifications

Power requirements:
 10 to 17 V
 (supplied from camera or CCU)
 Power consumption:
 4.0 W
 Operating temperature:
 +5°C to 40°C (41°F to 104°F)
 Storage temperature:
 -20°C to 55°C (-4°F to 131°F)
 Dimensions:
 102 (W) x 74 (D) x 354 (D) mm
 (4 1/8 x 3 x 14 inches)
 Mass:
 Approx. 1.3 kg (2 lb 14 oz)



RM-BR300 Remote Control Unit

Features

*Easy-to-use and ergonomic joystick design *Feature-rich control panel

Applicable Models

BRC-300 3-CCD Color Video Camera
BRU-300 Optical Multiplex Unit

Supplied Accessories

AC adaptor (1)
AC power cable (1)
RS-232C cable (1)
Terminal connector (2)
Operating instructions (1)



RM-C950 Remote Control Unit

Features

*Full remote control of the DXC-9000/950/ H10/390/990 camera functions and lens zoom/ focus/iris functions via RS-232C *Facilitated operation with knob control of gain, detail, master pedestal, red and blue gain functions
*Power is supplied through the DXC-9000/ 950/990 connected to the CMA-D2 Camera Adaptor or CCU-M5 Remote Control Unit *Power is supplied through the DXC-H10 connected to the CMA-H10 Camera Adaptor

Applicable Models

DXC-390 3-CCD Color Video Camera
DXC-390P 3-CCD Color Video Camera
DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera
DXC-C33 3-CCD Color Video Camera
DXC-C33P 3-CCD Color Video Camera

Supplied Accessories

Connection cable (3 m) (1)
Operation manual (1)

Specifications

Power requirements:
DC 12 V (supplied from DXC-9000/950 connected to CMA-D2 or CCU-M5)
Operating temperature:
-5 to 45°C (23 to 113°F)
Connectors:
CAMERA (8-pin)
Mass:
Approx. 400 g (14 oz)
Dimensions:
212 (W) × 41 (H) × 132 (D) mm
(8 3/8 × 1 5/8 × 5 1/4 inches)
(excluding projecting parts and controls)



RMM-301 Rack Mounting Bracket

Rack Mounting Bracket for CCU-590P and CCU-TX50

Specifications

Dimensions:

482(W) × 132(H) × 330(D)mm
(19 1/8 × 5 1/4 × 13 inches)

Mass:

4.7 kg (10 lb 6 oz)



VCL-0716BXA 1/2 Type Bayonet Mount Lens



Applicable Models

DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera

Supplied Accessories

Lens cap (front) (1)
Operation manual (1)
Lens cap (rear) (1)

Specifications

Type
1/2 type
Focal length
7.3 to 117 mm
Zoom ratio
16x
Maximum relative aperture
F1.9 (7.3 to 98 mm) to F2.3 (117 mm)
Flange focal length (in air)
38 mm (adjustable range: +/-0.3 mm)

Minimum object distance
1 m (0.04 m in macro operation)
Angle of view
Horizontal: 47°20' to 3°08'
Vertical: 36°24' to 2°21'
Diagonal: 57°26' to 3°55'
Iris control
Manual, Auto, Remote control from camera or control box
Zoom control
Manual, Remote control from control box
Focus control
Manual, Remote control from control box
Power requirements
DC 12 V
Current consumption
70 mA (Quiescent), 350 mA (Maximum)
Mount
Bayonet mount

Mass
Approx. 870 g (1 lb 15 oz)
Dimensions (W x H x D)
90.5 x 75 x 144.2 mm (3 5/8 x 3 x 5 3/4 inches), without lens hood

* Zoom/Focus/Iris functions can be remotely controlled from RM-C950/8.

VCL-616WEA 1/3 Type C-mount Lens



Supplied Accessories

Lens hood (1)
Lens cap (front) (1)
Lens cap (rear) (1)
Operation manual (1)

Specifications

Application
1/3 type format 3CCD color camera
Focal length
5.5 to 88 mm
Zoom ratio
16x
Maximum relative aperture
F1.4 (5.5 mm) to F1.8 (88 mm)
Iris range
F1.4 to F16, closed

Flange focal length (in air)
17.526 +/-0.05 mm (adjustable range: +/-0.20 mm)
Minimum object distance
1.0 m
Angle of view
Horizontal: 47°09' to 3°07'
Vertical: 36°15' to 2°21'
Iris control
Manual, Auto, Remote control from camera or control box
Zoom control
Manual, Remote control from control box
Focus control
Manual, Remote control from control box
Power requirements
DC 12 V
Maximum current consumption
400 mA

Mount
C mount
Mass
Approx. 900 g (1 lb 16 oz), without lens hood
Dimensions (W x H x D)
100 x 108 x 198.8 mm (4 x 4 1/4 x 7 7/8 inches)

VCS-700 Video Selector

Features

*Routes video output of multiple cameras for picture and waveform monitoring *Accepts up to six picture and waveform inputs *Video output selectable from the MSU-700A/750/A or external control equipment through the 37-pin I/O port *Two picture and waveform outputs available for different system applications



Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

AC power cord (1)
Plug holder for the AC power cord (1)
4-pin connector (1)
Operation manual (1)
Maintenance manual (1)

Specifications

General

Power requirements:
220 to 240 V AC, 50/60 Hz
Power consumption:
0.28 VA
Operating temperature:
5 to +45 °C (73 to +113 °F)
Mass:
5.2 kg (11 lb 7 oz)

Dimensions:

424(W) x 44(H) x 400(D)mm
(16 3/4 x 1 3/4 x 15 3/4 inches)

Input connectors

PIX 1 to PIX 6 input:
BNC type (6)
WF 1 to WF 6 input:
BNC type (6)
1.0 Vp-p(VBS)/0.7 Vp-p(V), 75 Ω
PIX A input:
BNC type (1) 1.0 Vp-p(VBS), 75 Ω
WF A input:

BNC type (1) 1.0 Vp-p(VBS), 75 Ω

CHARACTER input:

BNC type (1, with loop-through output)
0.7 Vp-p(V), 75 Ω

AC in:

3-pin

Output connectors

PIX A and PIX B output:
BNC type (1 each), 1.0 Vp-p(VBS), 75 Ω
WF A and WF B output:
1.0 Vp-p(VBS)/0.7 Vp-p(V), 75 Ω

SYNC output:

BNC type (1)
0.3 Vp-p(VBS), 75 Ω, negative polarity

WF mode:

round 4-pin connector (1)

Remote connectors

REMOTE:
8-pin multiconnectors (1)

I/O PORT:

D-sub 37-pin(1)

VCT-14 Tripod Adaptor



Applicable Models

HDC-1500 HD Portable Camera
BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera
DWW-970P Digital Betacam Camcorder
HDW-730S HDCAM Camcorder
HDW-750P HDCAM Camcorder
HDW-F900H HDCAM Camcorder
MSW-970P MPEG IMX Camcorder
PDW-510 XDCAM Camcorder (DVCAM Recording)
PDW-510P XDCAM Camcorder (DVCAM Recording)
PDW-530 XDCAM Camcorder (MPEG IMX/DVCAM Recording)
PDW-530P XDCAM Camcorder (MPEG IMX/DVCAM Recording)

Specifications

Dimensions:
282(W) x 27(H) x 80(D)mm
(11 1/8 x 1 1/8 x 3 1/4 inches)
Mass:
900 g (2 lb)

VCT-U14 Tripod Adaptor



Applicable Models

DSR-250P/1 DVCAM Camcorder
DSR-400PK DVCAM Camcorder
DSR-400PL DVCAM Camcorder
DSR-450WSPL DVCAM Camcorder
DXC-D50PH 3-chip CCD Portable Color Camera
DXC-D50PK 3-chip CCD Portable Color Camera
DXC-D50PL 3-chip CCD Portable Color Camera
DXC-D50WSPL 3-chip CCD Portable Color Camera
HDC-X300 HD Multi-purpose Camera
HDC-X300K HD Multi-purpose Camera

Specifications

Dimensions:
282 (W) x 27 (H) x 80 (D) mm
(11 1/8 x 1 1/8 x 3 1/4 inches)
Mass:
Approx. 900 g (2 lb)

VFH-550 5-inch Type Viewfinder Sports Hood

5-inch type viewfinder sports hood for BVF-55 series

Applicable Models
BVF-55CE/1



VFH-770 7-inch Type Viewfinder Sports Hood

7-inch type viewfinder sports hood for BVF-7700/77 series

Applicable Models
BVF-77CE/1
HDVF-C730W LCD Colour Viewfinder



WLL-CA50 Wireless Camera Transmitter (CER)

Features

*Wireless camera transmitter connected to either a Digital Betacam, MPEG IMX, or XDCAM camcorder, and used with the WLL-RX55 wireless camera receiver *MPEG-2 video compression and MPEG-1 Layer I/II 48-kHz audio *COFDM for stable transmission *Time interleave *Secure encryption key *2.4 GHz band transmission frequency allows a license-free operation *Cable-free camcorder connection *Flexible channel selector (up to 6 simultaneous channels) *User-friendly menu *Low power consumption



Applicable Models

DVW-970P Digital Betacam Camcorder
MSW-970P MPEG IMX Camcorder
PDW-510P XDCAM Camcorder
(DVCAM Recording)
PDW-530P XDCAM Camcorder
(MPEG IMX/DVCAM Recording)

Supplied Accessories

Transmission antenna (1)

Optional Accessories

BP-GL95 Rechargeable Lithium-ion Battery Pack
BP-GL65 Rechargeable Lithium-ion Battery Pack
AC-550CE AC Adaptor
WLL-RX55

Specifications

General

Power requirement:
12 V DC
Power consumption:
9W
Operating temperature:
0 °C to +40 °C (+32 °F to +104 °F)
Dimension (w x h x d):
97 x 209 x 152 (mm),
3 7/8 x 8 1/4 x 6 (inches)
Mass (excluding antenna):
1.2 kg (2 lb 10 oz)

RF block

TX center frequency range:
2406 to 2478 MHz
Modulation:
16 QAM-COFDM, QPSK-COFDM
Occupied bandwidth:
8 MHz
Channel spacing:
12 MHz
RF power output:
4 mW (EIRP = 10 mW)
Antenna gain:
4.0 dBi

Input

Input signals:
Digital component parallel
40-pin (Sony camcorder)
SDI (embedded audio)
BNC (x1) (spare)
Ext. DC IN:
11.3 to 17 V DC
XLR 4-pin male (x1)

Eco-info

Lead-free solder is used for soldering certain parts.
Halogenated flame retardants are not used in the printed wiring boards.

WLL-CA55 Wireless Camera Transmitter (CER)

Features

*Wireless camera transmitter connected to a BVP-E30 camera, and used with the WLL-RX55 receiver *MPEG-2 broadcast quality video and MPEG-1 Layer I/II 48-kHz audio transmission *Stable transmission using COFDM technology *Time interleave *2.4 GHz band transmission frequency allows a license-free operation *Secure encryption key *Cable-free camera connection *Full camera remote control capability *Full camera genlock *Flexible channel selector (up to 6 simultaneous channels) *User-friendly menu *Transmission status display in viewfinder *Low power consumption



Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera
BVP-E30WSP 3-chip CCD Portable Color Camera

Supplied Accessories

Transmission antenna (1)
Operation manual (1)

Optional Accessories

BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
AC-550CE AC Adaptor
WRR-855B UHF Synthesized Diversity Tuner (62CE7)
WRR-855A UHF Synthesized Diversity Tuner (64U)

Specifications

General

Power requirements:
DC 12 V
Power consumption:
15 W
Operating temperature:
-20 °C to +45 °C (-4 °F to +113 °F)
Dimensions (W x H x D):
132 x 214 x 176 mm (5 1/4 x 8 1/2 x 7 inches)
Mass (excluding antenna):
2 kg (4 lb 7 oz)

RF block

Transmission frequency range:
2402 to 2470 MHz (USA and Canada)
2402 to 2482 MHz (Other countries)

Transmission center
frequency range:

2406 to 2466 MHz
(USA and Canada)
2406 to 2478 MHz (Other countries)

Transmission mode:

Standard/Robust/High-picture/Standard-LD
(low delay)/Robust-LD (low delay)

Minimum system delay (Time interleave mode:
off):

2.3 frames (*)

Modulation:

16 QAM-COFDM, QPSK-COFDM

Occupied bandwidth:

8 MHz

Channel spacing:

12 MHz

RF power output:

4 mW (EIRP=10 mW)

Antenna gain:

4.0 dBi

Antenna directivity:

Omni-directional

Input/output

Camera interface:

Digital component parallel 68-pin (for Sony
digital camera)
Analog component parallel 68-pin (for Sony
analog camera)

DC input:

XLR-4-pin (for the optional AC-550/550CE), DC
10.5 to 17 V

DC output:

4-pin (for wireless microphone receiver), DC
10.5 to 17 V (Max. 200 mA)

RF output:

N-type special connector, 50 Ω

Video input:

BNC (SDI or analog composite), 1.0 Vp-p, 75 Ω

Audio input (CH-1/CH-2):

XLR-3-pin x 2

Intercom:

XLR-5-pin

Earphone:

Mini jack

Remote:

8-pin

Slot for wireless microphone receiver:

D-sub 15-pin

Eco info

Lead-free solder is used for soldering certain
parts.
Halogenated flame retardants are not used in
the printed wiring boards.

* The system delay is measured by WLL-CA55 and WLL-RX55 combination.

WLL-RX55 Wireless Camera Receiver

Features

*Wireless camera receiver, designed to be used with the WLL-CA50/CA55 *Diversity reception *MPEG-2 video compression and MPEG-1 Layer I/II 48-kHz audio *COFDM for stable transmission*Time interleave *2.4 GHz band transmission frequency allows a license-free operation *Secure encryption key *Flexible channel selector (up to 6 simultaneous channels) *Wireless camera control capability *User-friendly menu *Versatile antenna unit



Supplied Accessories

Reception antenna (2)
Down converter (2)
Mounting bracket (2)
Mounting screw: M3 (4)
Mounting screw: M4 (8)
Coaxial cable with N-type connectors (10 m) (2)
4-pin connector (1)
Fasten belt (1)
Camera number plate (1)
Operation manual (1)

Optional Accessories

RM-B750 Remote Control Unit
RM-B150 Remote Control Unit
RCP-750 Remote Control Panel (Joystick type)
RCP-751 Remote Control Panel (Dial control type)
WRT-8B UHF Synthesized Transmitter (6668U)
WRT-822A UHF Synthesized Wireless Transmitter (64U)
WRT-822B UHF Synthesized Wireless Transmitter (62CE7)

Specifications

General

Power requirements:
AC 100 to 240 V, 50/60 Hz or DC 12 V
Power consumption:
66 W
Operating temperature:
5 to 40 °C (41 to 104 °F)
Storage temperature:
-20 to +60 °C (-4 to +140 °F)
Dimensions (W x H x D):
200 x 127 x 365 mm (7 7/8 x 5 x 14 3/8 inches)
Mass:
5 kg (11 lb)

Reception system

Receiving center frequency range:
2406 to 2478 MHz
Occupied bandwidth:
8 MHz
Channel spacing:
12 MHz
Antenna gain:
9.0 dBi
Antenna directivity:
60°
Modulation:
16QAM-COFDM, QPSK-COFDM

IF center frequency:
326 to 398 MHz
IF input connector:
N-type special connector x 2, 50 Ω
IF output connector:
N type special connector x 2, 50 Ω, loop through
Input/output
Bitstream input:
Data format
DVB-ASI
Connector
BNC x 2, 75 Ω
Bitstream output:
Data format
DVB-ASI
Connector
BNC x 2, 75 Ω
Sync signal input:
Reference input
BNC x 2, VBS/BS: 1.0 Vp-p, 75 Ω, loop through
Digital signal output:
SDI/ASI output
BNC x 3, transmission cable length: max. 200 m
SDI: 4:2:2 component serial digital (270 Mb/s), 0.8 Vp-p, 75 Ω
ASI: DVB-ASI, EN50083-9 (DVB-PI-232 Revised TM Rev.2)
Transmission mode: Data-packet mode (188 bytes)
Analog signal output:
Video 1
BNC, 1.0 Vp-p, 75 Ω
Video 2
BNC, 1.0 Vp-p, 75 Ω
Video 3
BNC, 1.0 Vp-p, 75 Ω
PIX
BNC, 1.0 Vp-p, 75 Ω
WF
BNC, Encode output: 1.0 Vp-p, 75 Ω
WF mode
4-pin
Audio output
XLR-3-pin x 2, 0 dBu/-20 dBu balanced
Other input/output
DC input:
XLR-4-pin (for the optional AC-550/550CE), DC 10.5 to 17 V
DC output:
4-pin (for wireless microphone transmitter) (Max. 200 mA)

Remote:
8-pin
Intercom/Tally/Program:
D-sub 25-pin, 4W/RTS,
Tally: DC 24 V, TTL level, or contact selectable
Mic remote:
D-sub 15-pin
Intercom (front):
XLR-5-pin
Camera control:
XLR-3-pin
Eco info
Lead-free solder is used for soldering certain parts.
Halogenated flame retardants are not used in the printed wiring boards.

SONY

HDCAM Camcorders

HDW-750P	.....	76
HDW-730S	.....	78

HDW-750P HDCAM Camcorder

Features

*Combines an HD color video camera head with an HDCAM portable video cassette recorder *Incorporates three 2/3-inch type Power HAD FIT CCD imagers each with 2,200,000 pixels that conform to 1920(H) x 1080(V) CIF (Common Image Format) *10-bit A/D converter and Advanced Digital Signal Processor (ADSP) for excellent picture quality *Superb recording quality and high reliability of the HDCAM format in the VTR section *Allows 25PsF and 50i recording at 1920 x 1080 pixel resolutions *Provides excellent portability and a dust and drip-proof design for use in High Definition ENG, EFP and the other applications *A new method of processing HD digital signals further improves image quality and simplifies setup operations *Existing 2/3-inch type lens can be used *Slot-in mechanism to accommodate an optional Wireless Microphone Receiver *Picture cache function (optional) to avoid missing the start of an important shot *Memory stick setup system can memorize and recall various parameter settings *Electronic shutter includes ECS and S-EVS functions to provide motion blur-free images in any situation *HD SDI output provided as standard *Down converted SD-SDI or analog composite out (option) *Dual filter wheels for Neutral density and Color temperature control *A simple switch operation enables automatic adjustment of black set, black balance and white balance *Various warning indicators

*New version 2 camcorder software increases latitude to give a more film-like dynamic transfer characteristic
*Remote REC start of HDW-S280/1 via HD-SDI (with version 2 software)

The HDW-750P can be supplied with an HDVF-C30W (2.7-inch HD Colour LCD Viewfinder), instead of the 2-inch Mono viewfinder. In this case, the model code is HDW-750PC



Supplied Accessories

HDVF-20A 2-inch Type HD B/W CRT Viewfinder (1)
Stereo microphone (super cardioid directional, external power supply type) (1)
Shoulder Strap (1)
Lens mount securing rubber (1)
Operation Manual (1)

Optional Accessories

HDVF-C750W Multi-format HD Color LCD Viewfinder
HDVF-C30W Multi-format HD Color LCD Viewfinder
BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
AC-DN10 AC Adaptor/Charger
AC-DN2B AC Adaptor
RM-B750 Remote Control Unit
HKDW-705 Slow Shutter Board
BC-M150 Ni-MH & Li-ion Battery Charger
HKDW-702/1 Down Converter Board
HKDW-703/1 Picture Cache Board
BKW-401 Viewfinder Rotation Bracket
RM-B150 Remote Control Unit
VCT-14 Tripod Adaptor
LMD-9050 Colour LCD Monitor
ECM-678 Shotgun Microphone
WRT-847 UHF Handheld Transmitter
WRR-855B UHF Synthesized Diversity Receiver
WRT-8B UHF Synthesized Diversity Transmitter
MSA-A "Memory Stick" IC Memory Media
BKDW-701 Servo Filter Unit
LC-DN7 Carry Case

Specifications

General

Power voltage:
12 +5.0/-1.0

Power consumption:
34 W (with 12 V DC supply, when recording without HDVF-20A)

Operating temperature:
0 °C to 40 °C (32 °F to 104 °F)

Operating humidity:
25% to 85% (relative humidity)

Storage temperature:
-20 °C to 60 °C (-4 °F to 140 °F)

Mass:
Approx. 5.3 kg (11 lb 14oz) (with viewfinder, cassette, and BP-GL95 Battery Pack)

Video Camera Section

Imager:
2/3-inch type FIT CCD with 2,200,000 pixels

Effective picture elements:
1920 (H) x 1080 (V)

Imager Configuration:
RGB 3-CCD

Spectral system:
F1.4 prism system (with quartz filter)

Built-in filters
CC filter:
A: Cross filter
B: 3200K
C: 4300K
D: 6300K
ND filter:
1: Clear
2: 1/4 ND
3: 1/16 ND
4: 1/64 ND

Lens mount:
Special bayonet type

Sensitivity:
F10 (Typical) 89.9% reflection chart, 2000 lx

Minimum Illumination:
Approx. 0.3 lx (F 1.4 lens, +42 dB turbo gain)

Smear Level:
-135 dB (typical)

S/N ratio:
54 dB (typical)

Modulation depth at 5 MHz:
45% \pm 5%

Horizontal resolution:
1000 TV lines

Shutter speed:
1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) (at 50i format) 1/33, 1/50, 1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s) (at 25PsF format)

ECS:
25.0 Hz to 4700 Hz (at 50i format), 25.0 to 2100 Hz (at 25PsF format)

Programmable Gain:
-3, 0, 3, 6, 9, 12, 18, 24, 30, 36, 42 dB
(select in camera set up menu for L/M/H/TURBO)

VTR Section

Usable cassette tapes:
BCT-22HD/40HD 1/2-inch HDCAM cassette tapes

Tape speed:
Approx. 80.6 mm/s (at 50i/25PsF format)

Record/playback time:
Max. 48 min. with BCT-40HD

Fast forward time:
Approx. 5 minutes (using BCT-40HD video cassette)

Rewind time:
Approx. 5 minutes (using BCT-40HD video cassette)

Continuous recording time:
Approx. 90 minutes (using BP-L60A Battery Pack)

Digital video signal

Sampling frequency:
Y: 74.25 MHz, PB/PR: 37.125 MHz

Quantization:
10 bits/sample (8 bits/sample for compression processing)

Compression:
Coefficient recording system

Channel coding:
S-NRZI PR-IV

Error correction:
Reed-Solomon code

Error concealment:
Adaptive three dimensional

Audio (with standard playback machine)

Frequency response:
20 Hz to 20 kHz +0.5/-1.0 dB

Dynamic range:
85 dB min, (emphasis ON)

Distortion:
0.08% max

Cross talk:
-70 dB max

Wow and flutter
Below measurable limit

Input/output connectors

Signal inputs:
Audio IN CH-1/CH-2 (XLR, 3-pin, female):
-60 dBu/+4 dBu (0 dBu = 0.775 Vrms)

MIC IN (XLR, 5-pin, female):
-60 dBu

GENLOCK IN (BNC type):
1.0 Vp-p, 75 Ω

TC IN (BNC type):
0.5 V to 18 Vp-p, 10 k Ω

Signal outputs

TEST OUT (BNC type):
1.0 Vp-p, 75 Ω , unbalanced

VBS/SDI OUT (BNC type) (only when the HKDW-702/1 is installed):
75 Ω , unbalanced, VBS OUT: 1.0 Vp-p, SDI OUT: 0.8 Vp-p

HD SDI OUT (BNC type):
0.8 Vp-p, 75 Ω , unbalanced

AUDIO OUT (XLR, 5-pin, male):
0 dBm

TC OUT (BNC type):
1.0 Vp-p, 75 Ω

EARPHONE (minijack)
8 Ω , - ∞ to -18 dBs variable

Others

DC IN (XLR, 4-pin, male):
11 to 17 V DC

DC OUT (4-pin):
11 to 17 V DC, maximum current 0.1A

LENS (12-pin)

REMOTE (8-pin)

HDW-730S HDCAM Camcorder

The HDW-730S is an HDCAM camcorder that is offered at a price point comparable to high-end SD camcorders by specifically focusing on 1080/60i or 1080/50i acquisition. Equipped with a number of unique features to powerfully assist even the harshest shooting environments, plus the outstanding picture performance that all HDCAM camcorders provide, the HDW-730S is the ideal camcorder to support migration to the next generation of ENG, EFP, and general HD acquisition applications.

Features

- *2.2 million-pixel 2/3-inch type IT Power HAD CCD
- *Ultimate Sensitivity (with the HKDW-705 Slow Shutter Board)
- *Reduced risk of missing scenes (with the HKDW-703/1 Picture Cache Board)
- *Long Recording Time
- *Rugged and Ergonomic Design
- *Versatile Monitoring Capability
- *Shot Mark Handling
- *Quick Setup
- *Single Optical Filter Wheel

- * New version 2 camcorder software increases latitude to give a more film-like dynamic transfer characteristic
- *Remote REC start of HDW-S280/1 via HD-SDI (with version 2 software)

Supplied Accessories

- HDVF-20A 2-inch Type HD B/W CRT Viewfinder (1)
- Shoulder Strap (1)
- Monaural microphone, Ultra directional (1)
- Lens mount securing rubber (1)
- Operation Manual (1)

Optional Accessories

- HDVF-C30W Multi-format HD Color LCD Viewfinder
- BP-GL65 Rechargeable Lithium-ion Battery Pack
- BP-GL95 Rechargeable Lithium-ion Battery Pack
- AC-DN2B AC Adaptor
- AC-DN10 AC Adaptor/Charger
- RM-B750 Remote Control Unit
- HKDW-705 Slow Shutter Board
- BC-M150 Ni-MH & Li-ion Battery Charger
- HKDW-702/1 Down Converter Board
- HKDW-703/1 Picture Cache Board
- BKW-401 Viewfinder Rotation Bracket
- RM-B150 Remote Control Unit
- VCT-14 Tripod Adaptor
- WRR-855B UHF Synthesized Diversity Receiver
- WRT-8B UHF Synthesized Diversity Transmitter
- WRT-847 UHF Handheld Transmitter
- LMD-9050 Colour LCD Monitor
- MSA-A "Memory Stick" IC Memory Media
- LC-DN7 Carry Case
- ECM-678 Shotgun Microphone



Specifications

General

Mass:

Approx. 3.7 kg (8 lb 3 oz): Main Body,
Approx. 5.3 kg (11 lb 14 oz) (with MIC, VF,
BCT-40HD and BP-GL95)

Dimensions:

127 x 206 x 308 mm (5 x 8 1/8 x 12 1/4
inch)

Power requirements:

DC 12V + 5.0 V/-1.0 V

Power consumption:

33 W (with 12V power supply, REC mode,
without VF)

Operating temperature:

0 °C to +40 °C (32 °F to + 104 °F)

Storage temperature:

-20 °C to + 60 °C (-4 °F to + 140 °F)

Humidity:

25% to 85% (relative humidity)

Continuous operating time:

Approx. 135 min with BP-GL95

Input/Output connectors

Genlock video input:

BNC type x 1, 1.0 Vp-p, 75 Ω

Time code input:

BNC type x 1, 0.5 V to 18 Vp-p, 10 kΩ

Mic input:

XLR-3-pin type x 1 (Female), -60 dBu

Test output:

BNC type x 1, 1.0 Vp-p, 75 Ω, unbalanced

VBS/SDI output (option: HKDW-702/1):

BNC type x 1, 75 Ω

VBS out: 1.0 Vp-p

SDI out: 0.8 Vp-p

HD-SDI output:

BNC type (x 1), 0.8 Vp-p, 75 Ω,
unbalanced

Audio output:

XLR-5-pin type x 1 (Male), 0 dBm

Time code output:

BNC type x 1, 1.0 Vp-p, 75 Ω

Earphone:

Mini Jack x 2, 8 Ω, -∞ to -18 dBs variable

Lens:

12-pin

Remote:

8-pin

Light:

2-pin, DC 12 V, max. 50 W

DC input:

XLR-4-pin type (Male), DC 11 V to 17 V

DC output

4-pin (for wireless microphone receiver),
DC 11 V to 17 V, maximum current 0.1 A

VTR section

Recording format:

HDCAM

Tape speed:

Approx. 96.7 mm/s (at 30 frames) (at
59.94i format)

Approx. 80.6 mm/s (at 25 frames) (at 50i
format)

Playback/Recording time:

Max. 40 min. with BCT-40HD (at 59.94i
format)

Max. 48 min. with BCT-40HD (at 50i
format)

Fast forward/rewind:

Approx. 5 min. with BCT-40HD

Recommended tape:

Approx. 5 min. with BCT-40HD

Digital video performance

Sampling frequency:

Y: 74.25 MHz, PB/PR: 37.125 MHz

Quantization:

10 bits/sample (8 bits/sample for
compression processing)

Channel coding:

S-NRZI PR-IV

Compression:

Coefficient recording system

Error correction:

Reed-Solomon code

Error concealment:

Adaptive three dimensional

Audio performance

Frequency response:

20 Hz to 20 kHz, + 0.5 dB/-1.0 dB

Dynamic range:

More than 85 dB (emphasis ON)

Distortion (at 1kHz, emphasis ON, reference level):

Less than 0.08%

Cross talk (at 1 kHz, reference level):

Less than -70 dB

Wow and flutter:

Below measurable limit

Camera section (Performance)

Pickup device:

3-chip 2/3-inch type IT CCD

Effective picture elements:

1920 (H) x 1080 (V)

Optical system:

F1.4 prism (Equipped with Quarz Filter)

Lens mount:

Special bayonet mount

Built-in filters:

1: Clear, 2: 5600K+1/8ND, 3: 5600K,

4: 5600K+1/64ND

Sensitivity (2000 lx, 89.9% reflectance):

F10.0 (typical) Equivalent to ISO 600 or
more

Minimum illumination:

Approx. 0.3 lx (F1.4 lens, +42 dB turbo
gain)

Smear level:

-125 dB

S/N ratio:

54 dB (typical)

Modulation depth at 5 MHz:

45% +/-5%

Horizontal resolution:

1000 TV lines

Shutter speed:

1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000
(s) (at 59.94i format)

1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000
(s) (at 50i format)

Clear Scan:

60 Hz to 4300 Hz (at 59.94i format)

Programmable Gain:

-3, 0, 3, 6, 9, 12, 18, 24, 30, 36, 42 dB

Viewfinder

CRT:

2.0-inch monochrome

Controls:

BRIGHT, CONTRAST, PEAKING controls

TALLY, ZEBRA, DISPLAY/ASPECT switches

Horizontal resolution:

500 TV lines (16:9, at center)

Microphone:

Ultra-directional monaural microphone
(Detachable)

SONY

XDCAM Camcorders

PDW-510	82
PDW-510P	84
PDW-530	86
PDW-530P	88
CBK-FC01	90
CBK-NC01	90
CBK-SC01	90
CBK-SD01	91
CBK-PC01	91

PDW-510 XDCAM Camcorder (DVCAM Recording)

Features

*DVCAM recording *Superb picture and sound quality
 *12-bit A/D conversion *High-performance digital signal processing *2/3-inch type 16:9/4:3 widescreen Power HAD EX CCD *Long recording time of 85 min. *Shock- and dust-resistant disc drive *2.5-inch(*1) type color LCD screen *Thumbnail Search operation *Scene Selection operation *Proxy AV (low-resolution audio and video) Data recording *Metadata recording including Essence Mark, UMID, Extended UMID *Picture cache recording function (up to ten seconds retroactively) *Progressive mode; NTSC: 29.97P or optional 23.976P(*2) *Slow shutter function *Turbo gain function (max. 48 dB) *Auto Tracing White Balance (ATW) capability *Multi-matrix function *Interval recording function *Analog composite output as standard *SDI output and analog composite input as option *Four assignable buttons *Slot to accommodate a Sony WRR-855 Series wireless microphone receiver *Optional Ethernet adaptor *"Memory Stick" stores camera setup parameters *Intelligent light system powered from the camcorder's battery *Built-in optical filter wheels *Camera control from RM-B150/B750 *Compact and lightweight (approx. 5.8 kg including VF, BP-IL75 battery, disc and mic) *Low power consumption of 36 W

(*1) Measured diagonally (*2) Recording to disc is in 59.94i via 2-3 pull-down



Supplied Accessories

Operation manual (1)
 Viewfinder (1)
 Lens cap (1)
 Shoulder belt (1)
 Monaural microphone (1)

Optional Accessories

CBK-FC01 Pull-down (24P shooting) Board
 CBK-SC01 Analog Composite Input Board
 CBK-SD01 SDI Output Board
 CBK-NC01 Ethernet (100Base-TX) Adaptor
 CA-701 Camcorder Adaptor
 CA-702 Camcorder Adaptor
 WLL-CA50 Wireless Camera Transmitter (UC)
 WLL-RX55 Wireless Camera Receiver
 RM-B150 Remote Control Unit
 RM-B750 Remote Control Unit
 BP-M100 Rechargeable Nickel Metal Hydride Battery Pack
 BP-IL75 Rechargeable Lithium-ion Battery Pack
 BP-GL95 Rechargeable Lithium-ion Battery Pack
 BC-M50 Ni-MH & Li-ion Battery Charger
 BC-M150 Ni-MH & Li-ion Battery Charger
 AC-550 AC Adaptor
 AC-DN2B AC Adaptor
 AC-DN10 AC Adaptor/Charger
 VCT-14 Tripod Adaptor
 BVF-V10 1.5-inch Type B/W Viewfinder (EIA)
 BKW-401 Viewfinder Rotation Bracket
 PFD23 Disc Professional Disc
 MSA-A "Memory Stick" IC Memory Media
 CCXA Cable Audio Cable
 VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable

VMC-IL66 cables 6-pin <-> 6-pin i.LINK Cable
 DMX-P01 Portable digital mixer
 WRR-855A UHF Synthesized Diversity Tuner (64U)
 WRR-855A UHF Synthesized Diversity Tuner (AU)
 WRR-855A UHF Synthesized Diversity Tuner (68U)
 WRR-855A UHF Synthesized Diversity Tuner (KR)
 WRR-855B UHF Synthesized Diversity Tuner (1416U)
 WRR-855B UHF Synthesized Diversity Tuner (3032U)
 WRR-855B UHF Synthesized Diversity Tuner (6264U)
 WRR-855B UHF Synthesized Diversity Tuner (6668U)
 WRR-861B UHF Synthesized Diversity Tuner (U6264)
 WRR-861B UHF Synthesized Diversity Tuner (U6668)
 WRR-862B UHF Synthesized Dual Diversity Tuner (1416U)
 WRR-862B UHF Synthesized Dual Diversity Tuner (3032U)
 WRR-862B UHF Synthesized Dual Diversity Tuner (6264U)
 WRR-862B UHF Synthesized Dual Diversity Tuner (6668U)

Specifications

General

Mass:

Approx. 4.1 kg (9 lb)
5.8 kg (12 lb 12 oz, with VF, Mic, Disc,
BP-IL75 battery)

Power requirements:

DC 12 V +5.0 V/-1.0 V

Power consumption:

Approx. 36 W (while recording, with
viewfinder, color LCD off)

Operating temperature:

-5 to 40 °C (+23 °F to +104 °F)

Storage temperature:

-20 to +60 °C (-4 °F to +140 °F)

Humidity:

10 to 90% (relative humidity)

Continuous operating time:

Approx. 120 min. w/BP-GL95 battery,
approx. 90 min. w/BP-IL75 battery

Recording format

Video:

DVCAM (25 Mb/s)

Proxy Video:

MPEG-4

Audio:

4 ch/16 bits/48 kHz

Proxy Audio:

A-law (4ch, 8 bits, 8 kHz)

Recording/playback time

85 min.

Signal inputs

Genlock video:

BNC x1, 1.0 Vp-p, 75 Ω

Time code input:

BNC x1, 0.5 to 18 Vp-p, 10 kΩ

Audio input:

XLR-3-31 x2, line / mic / mic+48V /
AES/EBU selectable

Mic input:

XLR-3-31 x1

Signal outputs

Video output:

BNC x1, 1.0 Vp-p, 75 Ω

Video test output:

BNC x1, 1.0 Vp-p, 75 Ω

Time code output:

BNC x1, 1.0 Vp-p, 75 Ω

Earphone:

Mini-jack x2 (front: monaural, rear:
stereo/monaural)

Audio output (CH-1/CH-2):

XLR 5-pin male (stereo)

Other inputs/outputs

Lens:

12-pin

Remote:

8-pin

Light:

2-pin, DC 12 V, max. 50 W

DC input:

XLR 4-pin (for the optional AC-550)

DC output:

4-pin (for wireless microphone receiver),
DC 12 V (MAX 0.2A)

Camcorder adapter:

40-pin

i.LINK:

IEEE1394, DV IN/OUT or file access mode,
6-pin x1

Audio performance

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB

Dynamic range:

More than 85 dB

Distortion:

Less than 0.08% (at 1 kHz, reference level)

Crosstalk:

Less than -70 dB (at 1 kHz, reference
level)

Wow & flutter:

Below measurable limit

Head room:

20 dB (ex-factory setting)

Camera section

Pickup device:

3-chip 2/3-inch type 16:9 widescreen

Power HAD EX CCD

Total picture elements:

1038(H) x 1008(V)

Effective picture elements:

980 (H) x 494 (V)

Optical system:

F1.4 prism

Built-in optical filters:

1 : 3200K, 2: 5600K+1/8ND, 3: 5600K,

4: 5600K+1/64ND

Shutter speed:

1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000
(s)

Slow shutter:

1/2 to 1/30 (s) (1 to 8 and 16 frame
accumulation)

Lens mount:

2/3" 48 bayonet mount

Sensitivity (2000 lx, 89.9% reflectance):

F11 (typical)

Minimum illumination:

Approx. 0.13 lx (F1.4 lens, +48 dB turbo
gain, shutter off)

Gain selection:

-3 dB, -0 dB, 3 dB, 6 dB, 9 dB, 12 dB,
18 dB, 24 dB, 30 dB, 36 dB, 42 dB, 48 dB

Smear level:

-140 dB (typical)

S/N ratio:

65 dB (typical)

Vertical resolution

400 TV Lines/450 TV Lines(EVS)

Registration:

0.05% (all zones, w/o lens)

Geometric distortion:

Below measurable level (w/o lens)

Modulation depth at 5 MHz:

70% (16:9, typical)/55% (4:3, typical)

Viewfinder

CRT:

2.0-inch type monochrome

Controls:

BRIGHT, CONTRAST, PEAKING controls,
TALLY, ZEBRA, DISPLAY switches

Horizontal resolution:

450 TV lines (16:9)

Microphone:

Ultra-directional (detachable)

Built-in LCD monitor

LCD:

2.5-inch type color LCD monitor

"Eco Info"

Halogenated flame retardants are not used
in printed wiring boards.

PDW-510P XDCAM Camcorder (DVCAM Recording)

Features

*DVCAM recording *Superb picture and sound quality
 *12-bit A/D conversion *High-performance digital signal processing *2/3-inch type 16:9/4:3 widescreen Power HAD EX CCD *Long recording time of 85 min. *Shock- and dust-resistant disc drive *2.5-inch(*1) type color LCD screen *Thumbnail Search operation *Scene Selection operation *Proxy AV (low-resolution audio and video) Data recording *Metadata recording including Essence Mark, UMID, Extended UMID *Picture cache recording function (up to ten seconds retroactively) *Progressive mode: 25P *Slow shutter function *Turbo gain function (max. 48 dB) *Auto Tracing White Balance (ATW) capability *Multi-matrix function *Interval recording function *Analog composite output as standard *SDI output and analog composite input as option *Four assignable buttons *Slot to accommodate a Sony WRR-855 Series wireless microphone receiver *Optional Ethernet adaptor *Memory Stick™ stores camera setup parameters *Intelligent light system powered from the camcorder's battery *Built-in optical filter wheels *Camera control from RM-B150/B750 *Compact and lightweight (approx. 5.8 kg including VF, battery, disc and mic) *Low power consumption of 36 W

(*1) Measured diagonally (*2) Recording to disc is in 59.94i via 2:3 pull-down



Supplied Accessories

Operation manual (1)
 Viewfinder (1)
 Lens cap (1)
 Shoulder belt (1)
 Monaural microphone (1)

Optional Accessories

CBK-SC01 Analog Composite Input Board
 CBK-SD01 SDI Output Board
 CBK-NC01 Ethernet (100Base-TX) Adaptor
 CA-701 Camcorder Adaptor
 CA-702P Camcorder Adaptor
 WLL-CA50 Wireless Camera Transmitter (CER)
 WLL-RX55 Wireless Camera Receiver
 RM-B150 Remote Control Unit
 RM-B750 Remote Control Unit
 BP-M100 Rechargeable Nickel Metal Hydride Battery Pack
 BP-IL75 Rechargeable Lithium-ion Battery Pack
 BP-GL95 Rechargeable Lithium-ion Battery Pack
 BC-M50 Ni-MH & Li-ion Battery Charger
 BC-M150 Ni-MH & Li-ion Battery Charger
 AC-550CE AC Adaptor
 AC-DN2B AC Adaptor
 AC-DN10 AC Adaptor/Charger
 BVF-V10CE 1.5-inch Type B/W Viewfinder (CCIR)
 BKW-401 Viewfinder Rotation Bracket
 VCT-14 Tripod Adaptor
 PFD23 Disc Professional Disc
 MSA-A *Memory Stick™ IC Memory Media
 CCXA Cable Audio Cable
 VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable
 VMC-IL66 cables 6-pin <-> 6-pin i.LINK Cable

DMX-P01 Portable digital mixer
 WRR-855A UHF Synthesized Diversity Tuner (AU)
 WRR-855B UHF Synthesized Diversity Tuner (21CE7)
 WRR-855B UHF Synthesized Diversity Tuner (33CE7)
 WRR-855B UHF Synthesized Diversity Tuner (62CE7)
 WRR-855B UHF Synthesized Diversity Tuner (67CE7)
 WRR-862A UHF Synthesized Dual Diversity Tuner (AU)
 WRR-862B UHF Synthesized Dual Diversity Tuner (21CE7)
 WRR-862B UHF Synthesized Dual Diversity Tuner (33CE7)
 WRR-862B UHF Synthesized Dual Diversity Tuner (62CE7)
 WRR-862B UHF Synthesized Dual Diversity Tuner (67CE7)
 PDW-RMT500 Camera Control Software

Specifications

General

Mass:

Approx. 4.1 kg (9 lb)
5.8 kg (12 lb 12 oz, with VF, Mic, Disc,
BP-IL75 battery)

Power requirements:

DC 12 V +5.0 V/-1.0 V

Power consumption:

Approx. 36 W (while recording, with
viewfinder, color LCD off)

Operating temperature:

-5 to 40 °C (+23 °F to +104 °F)

Storage temperature:

-20 to +60 °C (-4 °F to +140 °F)

Humidity:

10 to 90% (relative humidity)

Continuous operating time:

Approx. 120 min. w/BP-GL95 battery,
approx. 90 min. w/BP-IL75 battery

Recording format

Video:

DVCAM (25 Mb/s)

Proxy Video:

MPEG-4

Audio:

4 ch/16 bits/48 kHz

Proxy Audio:

A-law (4ch, 8 bits, 8 kHz)

Recording/playback time

85 min.

Signal inputs

Genlock video:

BNC x1, 1.0 Vp-p, 75 Ω

Time code input:

BNC x1, 0.5 to 18 Vp-p, 10 kΩ

Audio input:

XLR-3-31 x2, line / mic / mic+48V /
AES/EBU selectable

Mic input:

XLR-3-31 x1

Signal outputs

Video output:

BNC x1, 1.0 Vp-p, 75 Ω

Video test output:

BNC x1, 1.0 Vp-p, 75 Ω

Time code output:

BNC x1, 1.0 Vp-p, 75 Ω

Earphone:

Mini-jack x2 (front: monaural, rear:
stereo/monaural)

Audio output (CH-1/CH-2):

XLR 5-pin male (stereo)

Other inputs/outputs

Lens:

12-pin

Remote:

8-pin

Light:

2-pin, DC 12 V, max. 50 W

DC input:

XLR 4-pin (for the optional AC-550CE)

DC output:

4-pin (for wireless microphone receiver),
DC 12 V (MAX 0.2A)

Camcorder adapter:

40-pin

i.LINK:

IEEE1394, DV IN/OUT or file access mode,
6-pin x1

Audio performance

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB

Dynamic range:

More than 85 dB

Distortion:

Less than 0.08% (at 1 kHz, reference level)

Crosstalk:

Less than -70 dB (at 1 kHz, reference
level)

Wow & flutter:

Below measurable limit

Head room:

20 dB (ex-factory setting)

Camera section

Pickup device:

3-chip 2/3-inch type 16:9 widescreen

Power HAD EX CCD

Total picture elements:

1038(H) x 1188(V)

Effective picture elements:

980(H) x 582(V)

Optical system:

F1.4 prism

Built-in optical filters:

1 : 3200K, 2: 5600K+1/8ND, 3: 5600K,

4: 5600K+1/64ND

Shutter speed:

1/60, 1/125, 1/250, 1/500, 1/1000,

1/2000 (s)

Slow shutter:

1/2 to 1/25 (s) (1 to 8 and 16 frame
accumulation)

Lens mount:

2/3" 48 bayonet mount

Sensitivity (2000 lx, 89.9% reflectance):

F11 (typical)

Minimum illumination:

Approx. 0.13 lx (F1.4 lens, +48 dB turbo
gain, shutter off)

Gain selection:

-3 dB, -0 dB, 3 dB, 6 dB, 9 dB, 12 dB,

18 dB, 24 dB, 30 dB, 36 dB, 42 dB, 48 dB

Smear level:

-140 dB (typical)

S/N ratio:

63 dB (typical)

Vertical resolution

480 TV Lines/530 TV Lines(EVS)

Registration:

0.05% (all zones, w/o lens)

Geometric distortion:

Below measurable level (w/o lens)

Modulation depth at 5 MHz:

70% (16:9, typical)/55% (4:3, typical)

Viewfinder

CRT:

2.0-inch type monochrome

Controls:

BRIGHT, CONTRAST, PEAKING controls,
TALLY, ZEBRA, DISPLAY switches

Horizontal resolution:

450 TV lines (16:9)

Microphone:

Ultra-directional (detachable)

Built-in LCD monitor

LCD:

2.5-inch type color LCD monitor

"Eco Info"

Halogenated flame retardants are not used
in printed wiring boards.

PDW-530 XDCAM Camcorder (MPEG IMX/DVCAM Recording)

Features

*MPEG IMX (50/40/30 Mb/s) and DVCAM switchable recording *Superb picture and sound quality *12-bit A/D conversion *High-performance digital signal processing *2/3-inch type 16:9/4:3 widescreen Power HAD EX CCD *Long recording time; MPEG IMX at 30 Mb/s: 68 min., 40 Mb/s: 55 min., 50 Mb/s: 45 min., DVCAM: 85 min. *Shock- and dust-resistant disc drive *2.5-inch(*1) type color LCD screen *Thumbnail Search operation *Scene Selection operation *Proxy AV (low-resolution audio and video) Data recording *Metadata recording including essence mark, UMID, Extended UMID *Picture cache recording function (up to ten seconds retroactively) *Progressive mode; NTSC: 29.97P or optional 23.976P(*2) *Slow shutter function *Turbo gain function (max. 48 dB) *Auto Tracing White Balance (ATW) capability *Multi-matrix function *Interval recording function *Analog composite output as standard *SDI output and analog composite input as option *Four assignable buttons *Slot to accommodate a Sony WRR-855 Series wireless microphone receiver *Optional Ethernet adaptor **Memory Stick™ stores camera setup parameters *Intelligent light system powered from the camcorder's battery *Dual optical filter wheels for ND and CC *i.LINK (DV stream) output from MPEG IMX playback *Camera control from RM-B150/B750 *Compact and lightweight (approx. 5.8 kg including VF, BP-IL75 battery, disc and mic) *Low power consumption of 36 W

(*1) Measured diagonally (*2) Recording to disc is in 59.94i via 2:3 pull-down



Supplied Accessories

Operation manual (1)
Viewfinder (1)
Lens cap (1)
Shoulder belt (1)
Monaural microphone (1)

Optional Accessories

CBK-FC01 Pull-down (24P shooting) Board
CBK-SC01 Analog Composite Input Board
CBK-SD01 SDI Output Board
CBK-NC01 Ethernet (100Base-TX) Adaptor
CA-701 Camcorder Adaptor
CA-702 Camcorder Adaptor
WLL-RX55 Wireless Camera Receiver
WLL-CA50 Wireless Camera Transmitter (UC)
RM-B150 Remote Control Unit
RM-B750 Remote Control Unit
BP-M100 Rechargeable Nickel Metal Hydride Battery Pack
BP-IL75 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
BC-M50 Ni-MH & Li-ion Battery Charger
BC-M150 Ni-MH & Li-ion Battery Charger
AC-550 AC Adaptor
AC-DN2B AC Adaptor
AC-DN10 AC Adaptor/Charger
BVF-VC10W 1.35-inch Type Color Viewfinder
BKW-401 Viewfinder Rotation Bracket
VCT-14 Tripod Adaptor
PFD23 Disc Professional Disc
MSA-A "Memory Stick" IC Memory Media
VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable

VMC-IL66 cables 6-pin <-> 6-pin i.LINK Cable
CCXA Cable Audio Cable
DMX-P01 Portable digital mixer
WRR-855A UHF Synthesized Diversity Tuner (64U)
WRR-855A UHF Synthesized Diversity Tuner (AU)
WRR-855A UHF Synthesized Diversity Tuner (68U)
WRR-855A UHF Synthesized Diversity Tuner (KR)
WRR-855B UHF Synthesized Diversity Tuner (1416U)
WRR-855B UHF Synthesized Diversity Tuner (3032U)
WRR-855B UHF Synthesized Diversity Tuner (6264U)
WRR-855B UHF Synthesized Diversity Tuner (6668U)
WRR-861B UHF Synthesized Diversity Tuner (U6264)
WRR-861B UHF Synthesized Diversity Tuner (U6668)
WRR-862B UHF Synthesized Dual Diversity Tuner (1416U)
WRR-862B UHF Synthesized Dual Diversity Tuner (3032U)
WRR-862B UHF Synthesized Dual Diversity Tuner (6264U)
WRR-862B UHF Synthesized Dual Diversity Tuner (6668U)

Specifications

General

Mass:

Approx. 4.1 kg (9 lb)
5.8 kg (12 lb 12 oz, with VF, Mic, Disc,
BP-IL75 battery)

Power requirements:

DC 12 V +5.0 V/-1.0 V

Power consumption:

Approx. 36 W (while recording, with
viewfinder, color LCD off)

Operating temperature:

-5 to 40 °C (+23 °F to +104 °F)

Storage temperature:

-20 to +60 °C (-4 °F to +140 °F)

Humidity:

10 to 90% (relative humidity)

Continuous operating time:

Approx. 90 min. w/BP-IL75 battery, approx.
120 min. w/BP-GL95 battery

Recording format

Video:

MPEG IMX (50/40/30 Mb/s), DVCAM
(25 Mb/s)

Proxy Video:

MPEG-4

Audio:

MPEG IMX: 4 ch/16 bits/48 kHz or
4 ch/24 bits/48 kHz
DVCAM: 4 ch/16 bits/48 kHz

Proxy Audio:

A-law (4ch, 8 bits, 8 kHz)

Recording/playback time

MPEG IMX:

50 Mb/s: 45 min., 40 Mb/s: 55 min.,
30 Mb/s: 68 min.

DVCAM:

85 min.

Signal inputs

Genlock video:

BNC x1, 1.0 Vp-p, 75 Ω

Time code input:

BNC x1, 0.5 to 18 Vp-p, 10 kΩ

Audio input:

XLR-3-31 x2, line / mic / mic+48V /
AES/EBU selectable

Mic input:

XLR-3-31 x1

Signal outputs

Video output:

BNC x1, 1.0 Vp-p, 75 Ω

Video test output:

BNC x1, 1.0 Vp-p, 75 Ω

Time code output:

BNC x1, 1.0 Vp-p, 75 Ω

Earphone:

Mini-jack x2 (front: monaural, rear:
stereo/monaural)

Audio output (CH-1/CH-2):

XLR 5-pin male (stereo)

Other inputs/outputs

Lens:

12-pin

Remote:

8-pin

Light:

2-pin, DC 12 V, max. 50 W

DC input:

XLR 4-pin (for the optional AC-550)

DC output:

4-pin (for wireless microphone receiver),
DC 12 V (MAX 0.2A)

Camcorder adapter:

40-pin

i.LINK:

IEEE1394, DV IN/OUT or file access mode,
6-pin x1

Audio performance

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB

Dynamic range:

More than 85 dB

Distortion:

Less than 0.08% (at 1 kHz, reference level)

Crosstalk:

Less than -70 dB (at 1 kHz, reference
level)

Wow & flutter:

Below measurable limit

Head room:

20 dB (ex-factory setting)

Camera section

Pickup device:

3-chip 2/3-inch type 16:9 widescreen
Power HAD EX CCD

Total picture elements:

1038(H) x 1008(V)

Effective picture elements:

980(H) x 494(V)

Optical system:

F1.4 prism

Built-in optical filters:

1 : Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND
A: CROSS, B: 3200K, C: 4300K, D: 6300K

Shutter speed:

1/100, 1/125, 1/250, 1/500, 1/1000,
1/2000 (s)

Slow shutter:

1/2 to 1/30 (s) (1 to 8 and 16 frame
accumulation)

Lens mount:

2/3" 48 bayonet mount

Sensitivity (2000 lx, 89.9% reflectance):

F11 (typical)

Minimum illumination:

Approx. 0.13 lx (F1.4 lens, +48 dB turbo
gain, shutter off)

Gain selection:

-3 dB, -0 dB, 3 dB, 6 dB, 9 dB, 12 dB,
18 dB, 24 dB, 30 dB, 36 dB, 42 dB, 48 dB

Smear level:

-140 dB (typical)

S/N ratio:

65 dB (typical)

Vertical resolution

400 TV Lines/450 TV Lines(EVS)

Registration:

0.05% (all zones, w/o lens)

Geometric distortion:

Below measurable level (w/o lens)

Modulation depth at 5 MHz:

70% (16:9, typical)/55% (4:3, typical)

Viewfinder

CRT:

2.0-inch type monochrome

Controls:

BRIGHT, CONTRAST, PEAKING controls,
TALLY, ZEBRA, DISPLAY switches

Horizontal resolution:

450 TV lines (16:9)

Microphone:

Ultra-directional (detachable)

Built-in LCD monitor

LCD:

2.5-inch type color LCD monitor

"Eco Info"

Halogenated flame retardants are not used
in printed wiring boards.

PDW-530P XDCAM Camcorder (MPEG IMX/DVCAM Recording)

Features

*MPEG IMX (50/40/30 Mb/s) and DVCAM switchable recording *Superb picture and sound quality *12-bit A/D conversion *High-performance digital signal processing *2/3-inch type 16:9/4:3 widescreen Power HAD EX CCD *Long recording time; MPEG IMX at 30 Mb/s: 68 min., 40 Mb/s: 55 min., 50 Mb/s: 45 min., DVCAM: 85 min. *Shock- and dust-resistant disc drive *2.5-inch(*1) type color LCD screen *Thumbnail Search operation *Scene Selection operation *Proxy AV (low-resolution audio and video) Data recording *Metadata recording including Essence Mark, UMID, Extended UMID *Picture cache recording function (up to ten seconds retroactively) *Progressive mode: 25P *Slow shutter function *Turbo gain function (max. 48 dB) *Auto Tracing White Balance (ATW) capability *Multi-matrix function *Interval recording function *Analog composite output as standard *SDI output and analog composite input as option *Four assignable buttons *Slot to accommodate a Sony WRR-855 Series wireless microphone receiver *Optional Ethernet adaptor **Memory Stick™ stores camera setup parameters *Intelligent light system powered from the camcorder's battery *Dual optical filter wheels for ND and CC *i.LINK (DV stream) output from MPEG IMX playback *Camera control from RM-B150/B750 *Compact and lightweight (approx. 5.8 kg including VF, BP-IL75 battery, disc and mic) *Low power consumption of 36 W

(*1) Measured diagonally (*2) Recording to disc is in 59.94i via 2:3 pull-down



Supplied Accessories

Operation manual (1)
Viewfinder (1)
Lens cap (1)
Shoulder belt (1)
Monaural microphone (1)

Optional Accessories

CBK-SC01 Analog Composite Input Board
CBK-SD01 SDI Output Board
CBK-NC01 Ethernet (100Base-TX) Adaptor
CA-701 Camcorder Adaptor
CA-702P Camcorder Adaptor
WLL-CA50 Wireless Camera Transmitter (CER)
WLL-RX55 Wireless Camera Receiver
RM-B150 Remote Control Unit
RM-B750 Remote Control Unit
BP-M100 Rechargeable Nickel Metal Hydride Battery Pack
BP-IL75 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
BC-M50 Ni-MH & Li-ion Battery Charger
BC-M150 Ni-MH & Li-ion Battery Charger
AC-550CE AC Adaptor
AC-DN2B AC Adaptor
AC-DN10 AC Adaptor/Charger
BVF-V10CE 1.5-inch Type B/W Viewfinder (CCIR)
VCT-14 Tripod Adaptor
BKW-401 Viewfinder Rotation Bracket
PFD23 Disc Professional Disc
MSA-A "Memory Stick" IC Memory Media

CCXA Cable Audio Cable
VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable
VMC-IL66 cables 6-pin <-> 6-pin i.LINK Cable
DSR-DU1 Video Disc Unit
CA-DU1 Camera Adaptor
DMX-P01 Portable digital mixer
WRR-855A UHF Synthesized Diversity Tuner (AU)
WRR-855B UHF Synthesized Diversity Tuner (21CE7)
WRR-855B UHF Synthesized Diversity Tuner (33CE7)
WRR-855B UHF Synthesized Diversity Tuner (62CE7)
WRR-855B UHF Synthesized Diversity Tuner (67CE7)
WRR-862A UHF Synthesized Dual Diversity Tuner (AU)
WRR-862B UHF Synthesized Dual Diversity Tuner (21CE7)
WRR-862B UHF Synthesized Dual Diversity Tuner (33CE7)
WRR-862B UHF Synthesized Dual Diversity Tuner (62CE7)
WRR-862B UHF Synthesized Dual Diversity Tuner (67CE7)
PDW-RMT500 Camera Control Software

Specifications

General

Mass:

Approx. 4.1 kg (9 lb)
5.8 kg (12 lb 12 oz, with VF, Mic, Disc,
BP-IL75 battery)

Power requirements:

DC 12 V +5.0 V/-1.0 V

Power consumption:

Approx. 36 W (while recording, with
viewfinder, color LCD off)

Operating temperature:

-5 to 40 °C (+23 °F to +104 °F)

Storage temperature:

-20 to +60 °C (-4 °F to +140 °F)

Humidity:

10 to 90% (relative humidity)

Continuous operating time:

Approx. 120 min. w/BP-GL95 battery,
approx. 90 min. w/BP-IL75 battery

Recording format

Video:

MPEG IMX (50/40/30 Mb/s), DVCAM
(25 Mb/s)

Proxy Video:

MPEG-4

Audio:

MPEG IMX: 4 ch/16 bits/48 kHz or
4 ch/24 bits/48 kHz
DVCAM: 4 ch/16 bits/48 kHz

Proxy Audio:

A-law (4ch, 8 bits, 8 kHz)

Recording/playback time

MPEG IMX:

50 Mb/s: 45 min., 40 Mb/s: 55 min.,
30 Mb/s: 68 min.

DVCAM:

85 min.

Signal inputs

Genlock video:

BNC x1, 1.0 Vp-p, 75 Ω

Time code input:

BNC x1, 0.5 to 18 Vp-p, 10 kΩ

Audio input:

XLR-3-31 x2, line / mic / mic+48V /
AES/EBU selectable

Mic input:

XLR-3-31 x1

Signal outputs

Video output:

BNC x1, 1.0 Vp-p, 75 Ω

Video test output:

BNC x1, 1.0 Vp-p, 75 Ω

Time code output:

BNC x1, 1.0 Vp-p, 75 Ω

Earphone:

Mini-jack x2 (front: monaural, rear:
stereo/monaural)

Audio output (CH-1/CH-2):

XLR 5-pin male (stereo)

Other inputs/outputs

Lens:

12-pin

Remote:

8-pin

Light:

2-pin, DC 12 V, max. 50 W

DC input:

XLR 4-pin (for the optional AC-550CE)

DC output:

4-pin (for wireless microphone receiver),
DC 12 V (MAX 0.2A)

Camcorder adapter:

40-pin

i.LINK:

IEEE1394, DV IN/OUT or file access mode,
6-pin x1

Audio performance

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB

Dynamic range:

More than 85 dB

Distortion:

Less than 0.08% (at 1 kHz, reference level)

Crosstalk:

Less than -70 dB (at 1 kHz, reference
level)

Wow & flutter:

Below measurable limit

Head room:

20 dB (ex-factory setting)

Camera section

Pickup device:

3-chip 2/3-inch type 16:9 widescreen
Power HAD EX CCD

Total picture elements:

1038(H) x 1188(V)

Effective picture elements:

980(H) x 582(V)

Optical system:

F1.4 prism

Built-in optical filters:

1 : Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND
A: CROSS, B: 3200K, C: 4300K, D: 6300K

Shutter speed:

1/60, 1/125, 1/250, 1/500, 1/1000,
1/2000 (s)

Slow shutter:

1/2 to 1/25 (s) (1 to 8 and 16 frame
accumulation)

Lens mount:

2/3" 48 bayonet mount

Sensitivity (2000 lx, 89.9% reflectance):

F11 (typical)

Minimum illumination:

Approx. 0.13 lx (F1.4 lens, +48 dB turbo
gain, shutter off)

Gain selection:

-3 dB, -0 dB, 3 dB, 6 dB, 9 dB, 12 dB,
18 dB, 24 dB, 30 dB, 36 dB, 42 dB, 48 dB

Smear level:

-140 dB (typical)

S/N ratio:

63 dB (typical)

Vertical resolution

480 TV Lines/530 TV Lines(EVS)

Registration:

0.05% (all zones, w/o lens)

Geometric distortion:

Below measurable level (w/o lens)

Modulation depth at 5 MHz:

70% (16:9, typical)/55% (4:3, typical)

Viewfinder

CRT:

2.0-inch type monochrome

Controls:

BRIGHT, CONTRAST, PEAKING controls,
TALLY, ZEBRA, DISPLAY switches

Horizontal resolution:

450 TV lines (16:9)

Microphone:

Ultra-directional (detachable)

Built-in LCD monitor

LCD:

2.5-inch type color LCD monitor

"Eco Info"

Halogenated flame retardants are not used
in printed wiring boards.

CBK-FC01 Pull-down (24P shooting) Board

Features

*Provides progressive modes of 23.976P to offer a film-like effect

*Recording to disc is in 59.94i via 2-3 pull-down.

Note: Only applicable for NTSC versions, PDW-510P & PDW-530P containing 25P function as standard.

Applicable Models

PDW-510 NTSC version XDCAM Camcorder
(DVCAM Recording)

PDW-530 NTSC version XDCAM Camcorder
(MPEG IMX/DVCAM Recording)



CBK-NC01 Ethernet (100Base-TX) Adaptor

Features

*Allows PDW-530/530P//510/510P camcorders to connect to an Ethernet network

Applicable Models

PDW-510 NTSC version XDCAM Camcorder
(DVCAM Recording)

PDW-510P PAL version XDCAM Camcorder
(DVCAM Recording)

PDW-530 NTSC version XDCAM Camcorder
(MPEG IMX/DVCAM Recording)

PDW-530P PAL version XDCAM Camcorder
(MPEG IMX/DVCAM Recording)



CBK-SC01 Analog Composite Input Board

Analog composite input board for
PDW-530/530P/510/510P camcorders

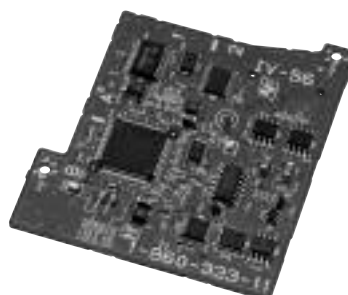
Applicable Models

PDW-510 NTSC version XDCAM Camcorder
(DVCAM Recording)

PDW-510P PAL version XDCAM Camcorder
(DVCAM Recording)

PDW-530 NTSC version XDCAM Camcorder
(MPEG IMX/DVCAM Recording)

PDW-530P PAL version XDCAM Camcorder
(MPEG IMX/DVCAM Recording)

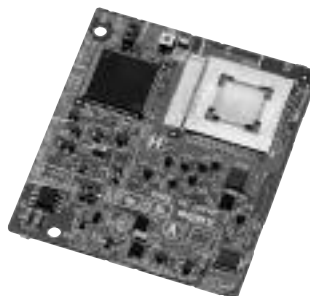


CBK-SD01 SDI Output Board

SDI output board for PDW-530/530P/510/510P,
DVW-970/970P, MSW-970/ 970P camcorders

Applicable Models

PDW-510 NTSC version XDCAM Camcorder
(DVCAM Recording)
PDW-510P PAL version XDCAM Camcorder
(DVCAM Recording)
PDW-530 NTSC version XDCAM Camcorder
(MPEG IMX/DVCAM Recording)
PDW-530P PAL version XDCAM Camcorder
(MPEG IMX/DVCAM Recording)
DVW-970 Digital Betacam Camcorder
DVW-970P Digital Betacam Camcorder
MSW-970 MPEG IMX Camcorder
MSW-970P MPEG IMX Camcorder



CBK-PC01 XDCAM Memory Card Adaptor

Features

*The CBK-PC01 is a slot-in type PC card adaptor, so that it smartly connected to the PDW-510/530 series WRR slot-in holder *By utilizing the CBK-PC01 while shooting, proxy data file and metadata file can be stored in the memory card at the same time as in the disc

Applicable Models

PDW-510 & PDW-510P XDCAM Camcorder
(DVCAM recording)
PDW-530 & PDW-530P XDCAM Camcorder
(DVCAM / MPEG IMX recording)



SONY

Digital Betacam Camcorders

DVW-970P 94

DVW-970P Digital Betacam Camcorder

Features

Superb picture quality of the Digital Betacam format
Power HAD EX CCD *14-bit A/D conversion and
Advanced Digital Signal Processing (ADSP) *High-quality
digital audio: four-channels, 20-bit/48 kHz *Long recording
time of 40 minutes on an S cassette *Compact and
lightweight: 5.4 kg (11 lb 14 oz) including the VF,
microphone, tape, and BP-GL95 battery *Low power
consumption of approximately 29 W *Stereo audio output
*Camera remote control using RM-B150/B750 *Dual
optical filters plus electric colour correction *Battery-
remaining display on viewfinder *Assignable functions
*Intelligent light system *Turbo gain: max. +48 dB
*Adjustable shoulder pad *Slot for WRR-855 series
wireless microphone receiver *Memory Stick system
stores camera setup parameters *Film-like images with
progressive mode *Slow shutter mode: max. 16 frames
*Picture cache and interval recording (the optional
CBK-MB01 required) *Selectable gamma table including
film-like gamma *TruEye processor *Adaptive highlight
control *Triple skin tone detail control *Variable black
gamma range *Auto-Tracing White balance (ATW)
*Multi-Matrix function *Electronic soft focus
*Colour temperature control *Essence Mark and UMID
handling



Supplied Accessories

Operation manual (1)
Viewfinder (1)
Lens cap (1)
Shoulder belt (1)
Monaural microphone (1)

Optional Accessories

CBK-SD01 SDI Output Board
CBK-MB01 Picture Cache Board
BKW-401 Viewfinder Rotation Bracket
RM-B150 Remote Control Unit
RM-B750 Remote Control Unit
AC-DN2B AC Adaptor
AC-DN10 AC Adaptor/Charger
BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
BP-L60S Rechargeable Lithium-ion Battery Pack
BC-L70 Li-ion Battery Charger
BC-M150 Ni-MH & Li-ion Battery Charger
VCT-14 Tripod Adaptor
BCT-D Series Digital BETACAM Tapes
*Memory Stick® IC Memory Media
ECM-678 Electret Condenser Microphone
ECM-674 Electret Condenser Microphone
WLL-CA50 Wireless Camera Transmitter
WLL-RX55 Wireless Camera Receiver
WRR-855B UHF Synthesized Diversity Tuner
WRR 862B UHF Synthesized Dual Diversity Tuner

Digital Betacam Camcorders

Specifications

General

- Power requirements
 - DC 12 V +5.0 V/-1.0 V
- Power consumption
 - 29 W (with DC 12 V power supply, REC mode, with viewfinder)
- Operating temperature
 - 0 to +40 °C (+32 to +104 °F)
- Storage temperature
 - 20 to +60 °C (-4 to +140 °F)
- Operating humidity
 - 25 to 85% (relative humidity)
 - Approx. 3.7 kg (8 lb 3 oz)
 - Approx. 5.4 kg (11 lb 14 oz)
 - (with viewfinder, microphone, BP-GL95 battery, BCT-D40 tape)
 - 20 °C to +60 °C (-4 °F to +140 °F)
- Continuous operating time
 - Approx. 170 min. with BP-GL95 battery at 25 °C (77 °F), REC mode

Signal inputs/outputs

- Genlock video input
 - BNC type (1), 1.0 Vp-p, 75 Ω
- Audio input (CH-1/2)
 - XLR-3-31 type (2), -60/-50/-40/+4 dBu ^(*)
 - selectable, high impedance, balanced
- Microphone input
 - XLR-3-31 type (1), -60/-50/-40 dBu ^(*)
- Time code input
 - BNC type (1), 0.5 to 18 Vp-p, 10 kΩ
- Analog composite output
 - BNC type (1), 1.0 Vp-p, 75 Ω
- SDI output
 - BNC type (1), 0.8 Vp-p, 75 Ω
 - (the optional CBK-SD01 is required)
- Video test output
 - BNC type (1), 1.0 Vp-p, 75 Ω
- Audio output (CH-1/2)
 - XLR-5-pin, male (stereo)
- Time code output
 - BNC type (1), 1.0 Vp-p, 75 Ω
- Earphone output
 - Mini-jack (2)

Other inputs/outputs

- Lens
 - 12-pin
- VF
 - 20-pin
- Remote
 - 8-pin
- Wireless microphone
 - D-Sub 15-pin
- Light
 - 2-pin, DC 12 V, max. 50 W
- DC input
 - 4-pin (for wireless microphone receiver), DC 12 V (max. 0.1 A)
- DC output
 - 4-pin (for wireless microphone receiver), DC 12 V (max. 0.1 A)
- Battery terminal
 - 5-pin
- Camcorder adaptor
 - 40-pin

Camera section

- Pickup device
 - Pickup device
 - 3-chip 2/3-inch type Power HAD EX CCD
- Aspect ratio
 - 16:9/4:3 switchable
- Total picture elements (H x V)
 - 1038 x 1188

Effective picture elements (H x V)

980 x 1164

Optical system

- Spectral system
 - F1.4 prism (with quartz filter)
- Built-in filters

- 1: Clear, 2: 1/4ND, 3: 1/16ND,
- 4: 1/64ND, A: CROSS, B: 3200K,
- C: 4300K, D: 6300K

Lens mount

- 2/3-inch type Sony bayonet mount

Electrical characteristics

Scan format

- 625/50i, 625/25p

A/D conversion

- 14 bits

Sensitivity

- F11 (typical)
- (2000 lx, 89.9% reflectance)

Minimum illumination

- 0.008 lx (F1.4 lens, +48 dB gain, with slow shutter mode at 16-frame accumulation)

Smear level

- 145 dB (typical)

Video S/N ratio

- 63 dB (typical)

Vertical resolution

- 480 TV lines (with EVS) and
- 530 TV lines (without EVS) at
- 625/50i mode
- 575 TV lines at 625/25p mode

Shutter speed

- 1/60, 1/125, 1/250, 1/500, 1/1000,
- 1/2000 s at 625/50i mode
- 1/33, 1/50, 1/100, 1/125, 1/250,
- 1/500, 1/1000, 1/2000 s at
- 625/25p mode

ECS

- 50 to 6000 Hz at 625/50i mode
- 25 to 6000 Hz at 625/25p mode

Slow shutter

- 1/25, 1/12.5, 1/8.3, 1/6.3, 1/5, 1/4.2,
- 1/3.6, 1/3.1, 1/1.6 s (1 to 8, 16 frames)

Gain selection

- 3, 0, 3, 6, 9, 12, 18, 24, 30, 36, 42,
- 48 dB (for GAIN LOW, GAIN MID,
- GAIN HIGH and GAIN TURBO positions)

Registration

- 0.05% (all zones, without lens)

Warm-up time

- 2 s

Modulation depth at 5 MHz

- 70% (16:9 typical)/55% (4:3 typical)

VTR Section

Recording format

Video

- Digital BETACAM

Audio

- 4 ch/20 bits/48 kHz

Tape speed

- 96.7 mm/s

Record/playback time

- Approx. 5 min (with the BCT-D40 cassette)

Rewind time

- Approx. 5 min (with the BCT-D40 cassette)

Recommended recording media

- Sony Digital Betacam S cassette:
- BCT-D6/D12/D22/D32/D40

Sampling frequency

- Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization

- 10 bits/sample

Digital video performance

K-factor (2T pulse)

- Less than 1%

Y/C delay

- Less than 15 ns

Digital audio performance ^(*)

Frequency response

- 20 Hz to 20 kHz, +0.5/-0.8 dB

Dynamic range

- More than 85 dB (emphasis on)

Distortion (at 1 kHz, emphasis ON, reference level)

- Less than 0.08%

Cross talk (at 1 kHz, reference level)

- Less than -70 dB

Wow & flutter

- Below measurable limit

Headroom

- 20 dB (ex-factory setting)

Viewfinder

CRT

- 2.0-inch type monochrome

Controls

- BRIGHT, CONTRAST, PEAKING controls,
- TALLY, ZEBRA, DISPLAY switches

Horizontal resolution

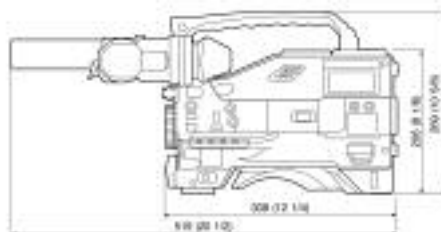
- 450 TV lines (16:9)/600 TV lines (4:3)

Microphone

- Electret condenser microphone
- (Ultra-directional) (detachable)

(*) 0 dBu=0.775 Vrms.

(*) The specifications given above were measured via CBK-SD01 SDI Output Board.



Unit: mm (inch)

SONY

MPEG IMX Camcorders

MSW-970P 98

MSW-970P MPEG IMX Camcorder

Features

*High Picture Quality using MPEG-2 4:2:2P@ML 50 Mb/s I-frame Compression *Power HAD EX CCD *Advanced Digital Signal Processing (ADSP) *14-bit A/D Conversion *Long Recording Time of up to 71 minutes on s-cassette *High-quality Digital Audio Recordings *User-friendly Menu Controls *Rugged and Ergonomic Design *Compact, Lightweight and Low Power Consumption *Versatile Interfaces *Camera Remote Control *Dual Optical Filters Plus Electric Color Correction *Assignable Functions *Battery Remaining Display on Viewfinder *Intelligent Light System *Slot-in Mechanism for Wireless Microphone Receiver *Turbo Gain *Memory Stick System for storage of Camcorder Setup Parameters *Adjustable Shoulder Pad *Film-like Images with Progressive Mode *Slow Shutter function *Picture Cache Recording *Interval Recording *TruEye Processor *Adaptive Highlight Control *Selectable Gamma Table Including Film-like Gamma *Triple Skin Tone Detail Control *Variable Black Gamma Range *Auto Tracing White Balance (ATW) *Multi-matrix Function *Electronic Soft Focus *Color Temperature Control *UMID¹ Recording *Essence Mark Handling *Tele-File System

¹ UMID is recognized as a standard under SMPTE 330M.



Supplied Accessories

Operation manual (1)
XLR connector cap (4)
Viewfinder (1)
Lens cap (1)
Shoulder belt (1)
Monaural microphone (1)

Optional Accessories

CBK-SD01 SDI Output Board
MSDW-903 Picture Cache Board
MSDW-904 Analog Composite Input Board
BKW-401 Viewfinder Rotation Bracket
RM-B150 Remote Control Unit
RM-B750 Remote Control Unit
AC-DN2B AC Adaptor
AC-DN10 AC Adaptor/Charger
BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
BP-L60S Rechargeable Lithium-ion Battery Pack
BC-L70 Li-ion Battery Charger
BC-M150 Ni-MH & Li-ion Battery Charger
MSH "Memory Stick" IC Memory Media
BCT-MX Series MPEG IMX Tapes
VCT-14 Tripod Adaptor
WRR-855B UHF Synthesized Diversity Tuner
WRR-862B UHF Synthesized Dual Diversity Tuner
ECM-674 Electret Condenser Microphone
ECM-678 Electret Condenser Microphone
WLL-RX55 Wireless Camera Receiver
WLL-CA50 Wireless Camera Transmitter (CER)
LC-DN7 Hard Carrying Case

MPEG IMX Camcorders

Specifications

General

Mass

Approx. 3.7 kg (8 lb 3 oz)
5.4 kg (with VF, Mic, BCT-60MX, BP-GL95)
(11 lb 14 oz)

Power requirements

DC 12 V +5.0 V/-1.0 V

Power consumption

Approx. 27 W (with DC 12V power supply,
REC mode with VF)

Operating temperature

0 to 40 °C (+32 °F to +104 °F)

Storage temperature

-20 to +60 °C (-4 °F to +140 °F)

Humidity

25 to 85% (relative humidity)

Continuous operating time

Approx. 180 min with BP-GL95 battery at 25 °C
(77 °F), REC mode

Signal inputs

Genlock video

BNC type x1, 1.0 Vp-p, 75 Ω

Time code input

BNC type x1, 0.5 to 18 Vp-p, 10 k Ω

Video outputs

SDI

BNC type x1, 0.8 Vp-p, 75 Ω
(with the CBK-SD01)

Audio input (CH-1/2)

XLR-3-31 type x2, -60/-50/+4 dBu selectable,
high impedance, balanced
(0 dBu = 0.775 Vrms.)

Mic input

XLR-3-31 type x1, -60/-50 dBu

Signal outputs

Video output (Analog composite)

BNC type x1, 1.0 Vp-p, 75 Ω

Video test output

BNC type x1, 1.0 Vp-p, 75 Ω

Time code output

BNC type x1, 1.0 Vp-p, 75 Ω

Earphone

Minijack x2

Audio output (CH-1/CH-2)

XLR-5-pin male (stereo)

Others

Lens

12-pin

VF

20-pin

Remote

8-pin

Light

2-pin, DC 12 V, max. 50 W

DC input

XLR-4-pin (male, DC 11 to 17V)

DC output

4-pin (for wireless microphone receiver),
DC 12 V (max. 0.1 A)

Battery terminal

5-pin

Wireless receiver input

D-Sub 15-pin

VTR section

Recording Format

Video

MPEG IMX (50/40/30 Mb/s)

Audio

4 ch/16 bits/48 kHz, 4 ch/20 bits/48 kHz

Tape speed

64.467 mm/s

Playback/Recording time

Max. 71 min. with BCT-60MX cassette

Fast forward time

Approx. 5 min. with BCT-60MX

Rewind time

Approx. 5 min. with BCT-60MX

Recommended tape

Sony MPEG IMX S cassette
(BCT6MX/12MX/22MX/32MX/60MX)

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

8 bits/sample

K-factor (2T pulse)

Less than 1%

Y/R-Y/B-Y delay

Less than 15 ns

Digital audio performance*

Sampling frequency:

48 kHz (synchronised with video)

Quantization:

20/16bits/ sample (selectable)

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB

Dynamic range:

More than 85 dB (emphasis ON)

Distortion (at 1 kHz, emphasis ON, reference level)

Less than 0.08%

Cross talk (at 1 kHz, reference level)

Less than -70 dB

Wow & flutter

Below measurable limit

Head room:

20 dB (ex-factory setting)

Camera section

Pickup device:

3-chip 2/3-inch type Power HAD EX CCD

Aspect ratio

16:9/4:3 switchable

Total picture elements

1038 (H) x 1188 (V)

Optical system

F1.4 prism (with quartz filter)

Built-in optical filters

1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND,
A: CROSS, B: 3200K, C: 4300K, D: 6300K

Lens mount

2/3 inche type Sony bayonet mount

Scan format

625/50i, 625/25p

Sensitivity (2000 lx, 89.9% reflectance)

F11 (typical) (2000 lx, 89.9% reflectance)

Minimum illumination

0.008 lx (F1.4 lens, +48 dB gain, with slow
shutter mode at 16-frame accumulation)

Smear level

-145 dB (typical)

Video S/N ratio

63 dB (typical)

Vertical resolution

480 TV lines (with EVS) and 530 TV lines

(without EVS) at 625/50i mode

575 TV lines at 625/25p mode

Shutter speed

1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s at
625/50i mode 1/33, 1/50, 1/100, 1/125, 1/250,
1/500, 1/1000, 1/2000 s at 625/25p mode

ECS

50 to 6000 Hz at 625/50i mode, 25 to 6000 Hz
at 625/25p mode

Slow shutter

1/25, 1/12.5, 1/8.3, 1/6.3, 1/5, 1/4.2, 1/3.6, 1/3.1,
1/1.6 s (1 to 8, 16 frames)

Gain selection

-3, 0, 3, 6, 9, 12, 18, 24, 30, 36, 42, 48 dB
(for GAIN LOW, GAIN MID, GAIN HIGH and
GAIN TURBO positions)

Registration

0.05% (all zones without lens)

Warm-up time

2 s

Modulation depth at 5MHz

70% (16:9, typical) /55% (4:3, typical)

Viewfinder

CRT

2.0-inch type monochrome

Controls

BRIGHT, CONTRAST, PEAKING controls, TALLY,
ZEBRA, DISPLAY switches

Horizontal resolution

450 TV lines (16:9)

Microphone

Electret condenser microphone
(Ultra-directional) (Detachable)

* The specifications given for digial audio performance
were measured via CA-701/702 Camcorder Adaptor or
MSDW-902 SDI output board.

SONY

HDV Camcorders

HVR-Z1E	102
HVR-A1E	104

HVR-Z1E HDV Camcorder

Features

3CCD Camera System with "1080i HD CCD" *14bit HD

DXP *Carl Zeiss® Vario-Sonnar® T* Lens with 12x Optical Zoom *HD Codec Engine™

*HDV1080i/DVCAM/DV (SP) recording and playback switchable system *50i/60i (PAL/NTSC) recording and playback switchable system

*Precision 16:9 SD recording and playback *Down Conversion function *Built-in wide-range stereo microphone and 2 ch. XLR Audio Inputs *Versatile Time Code settings *16:9 colour viewfinder

*16:9 3.5" hybrid colour LCD monitor

*Simultaneous Operation of LCD monitor and viewfinder *On handle zoom lever and rec. start/stop button *Variety of zoom operation *AF (Auto Focus) assist

*Manual Iris *Manual Gain *Manual Shutter Speed *Assign Buttons (custom configurable) *Expand focus *Marker

*Colour bars *External REC control *Quick REC *Audio Settings (recording levels, mic.

Select, monitoring, audio lock, output select, limiter, noise reduction) *Shot Transition™ *Picture Profile™

*Cinematone Gamma™ and Cineframe™ *Colour correction functions *Status Check button *Multi-language operation *Battery status indicator *Customised menu settings *Long recording time



Supplied Accessories

AC-VQ850 (AC Adaptor/Charger)

Power cord DK-415 (Connecting cord)

NP-F570 (InfoLITHIUM Rechargeable battery pack)

Lens Hood

Large Eye Cup

RMT-841 (Wireless Remote Controller)

A/V Connecting cable

Shoe Adaptor

2x Size AA (R6) batteries

Cleaning Cassette

Shoulder strap

Optional Accessories

NP-F970 InfoLITHIUM rechargeable battery pack

NP-F770 InfoLITHIUM rechargeable battery pack

NP-F570 InfoLITHIUM rechargeable battery pack

2NP-F970/B InfoLITHIUM rechargeable battery pack

VCT-FXA Shoulder Brace

VCL-HG0872 0.8x Wide Conversion Lens

VF-72CPK Filter Kit

LCH-FXA Hard Carrying Case

LCS-VCB Soft Carrying Case

LCR-FXA Rain Jacket

Specifications

Camera section

Lens:

Carl Zeiss Vario-Sonnar T* zoom lens,
12x (optical), f = 4. 5 to 54 mm (3/16 to 2
1/4 inches), f = 32.5 to 390 mm (1 5/16 to
15 3/8 inches)* at 16:9 mode, f = 40 to
480 mm (1 5/8 to 19 inches)* at 4:3 mode,
F = 1.6 to 2.8, filter diameter: 72 mm
(2 7/8 inches)

Built-in filter:

1/6 ND, 1/32 ND

Focus:

Auto, manual (focus ring/infinity position),
one push auto

Imaging device:

3-chip 1/3-inch type CCDs

Picture elements:

Approx. 1,070,000 pixels (effective),
approx. 1,120,000 pixels (total)

White balance:

Auto, one-push auto, indoor (3200 K),
outdoor (5800 K \pm 7 steps)

Shutter speed:

50i/PAL mode 1/3, 1/6, 1/12, 1/25, 1/50,
1/60, 1/100, 1/120, 1/150, 1/215, 1/300,
1/425, 1/600, 1/1000, 1/1250, 1/1750,
1/2500, 1/3500, 1/6000, 1/10000 s
60i/NTSC mode 1/4, 1/8, 1/15, 1/30, 1/60,
1/90, 1/100, 1/125, 1/180, 1/250, 1/350,
1/500, 1/725, 1/1000, 1/1500, 1/2000,
1/3000, 1/4000, 1/6000, 1/10000 s

Exposure:

Auto, manual

Gain:

0, 3, 6, 9, 12, 15, 18 dB (adjustable for H,
M and L gain positions)

Minimum illumination:

3 lx with F1.6 at 18 dB

* These values are calculated to be equivalent to
35mm film

VTR section

Recording format:

1080/50i, 1080/60i, 576/50i (PAL), 480/60i
(NTSC)

Playout/Down-conversion format:

1080/50i, 1080/60i, 576/50i (PAL), 480/60i
(NTSC) 576/50p, 480/60p

Tape speed:

HDV/DV SP Max. 18.812 mm/s with
PHDVM-63DM cassette
DVCAM Max. 28.218 mm/s with PHDVM-
63DM cassette

Playback/Recording time:

HDV/DV SPMax. 63 min with PHDVM-
63DM cassette
DVCAM Max. 41 min with PHDVM-63DM
cassette

Fast forward/Rewind time:

Approx. 2 min 40 s with PHDVM-63DM
cassette

Built-in input/output devices

LCD viewfinder:

0.44-inch type, approx. 252,000 pixels
(1120 x 225), hybrid type LCD monitor
3.5-inch type, approx. 250,000 pixels
(1120 x 224), hybrid type

Microphone:

Stereo type, noise reduction on/off

General

Mass Approx.:

2.1 kg (4 lb 10 oz) (camcorder only)

Power requirements

DC 7.2 V (battery pack)

Power consumption:

HDV Approx. 8.0 W (recording mode
with LCD viewfinder on)
DVCAM/DV Approx. 7.6 W (recording
mode with LCD viewfinder on)

Operating temperature:

0 to 40 °C (32 to 104 °K)

Storage temperature:

-20 to +60 °C (-4 to 140 °K)

Supplied accessories:

AC-VQ850 AC adaptor/charger, power
cord, connecting cord, lens hood, large
eye-cup, RMT-841 wireless Remote
Commander, A/V connecting cable,
component video cable, shoe adaptor,
NP-F570 InfoLITHIUM rechargeable
battery pack, size AA (R6) batteries (2),
cleaning cassette, shoulder strap,
operating instructions

HVR-A1E HDV Camcorder

Features

- *Adopts HDV 1080i specification of the HDV format that features 1080 effective scanning lines and 1440 horizontal pixels
- *Compatible with existing DV tape and new high-grade mini cassette tape; DigitalMaster PHDVM-63DM
- *Long recording time of 63 minutes with the DigitalMaster mini cassette tape
- *1/3-inch type, 2.97-megapixel CMOS sensor
- *Enhanced Imaging Processor (EIP)
- *Optical 10x Carl Zeiss Vario-Sonnar T* zoom lens
- *Electronic Super SteadyShot system
- *Full scan mode to capture images with the resolution of approximately two million pixels
- *Switchable recording and playback - HDV 1080i/DVCAM/DV (SP)
- *Down-conversion playback from 1080i down to 576i and 576P
- *Aspect ratio conversion from 16:9 to 4:3
- *HD Codec Engine to compress baseband HD signal data at approx. 25 Mb/s with MPEG-2 compression
- *Still picture recording to Memory Stick Duo media
- *16:9 widescreen acquisition in DVCAM and DV formats
- *i.LINK interface
- *2-channel XLR audio input
- *2-channel independent audio record level control with audio level meter
- *Compact and lightweight design
- *16:9, colour/black-and-white switchable LCD viewfinder
- *2.7-inch (*1) type, 16:9 widescreen, hybrid colour LCD monitor
- *Variety of zoom operations with a zoom lever, a zoom/focus ring and zoom buttons
- *Manual and automatic exposure control using the exposure lever
- *Tele macro function
- *New backlight compensation function
- *Marker display
- *User assignable function button
- *Time code preset
- *Histogram indicator for easy evaluation of the brightness of captured images
- *Shot Transition function to offer automatic transition of various shooting parameters between shots
- *Cinema-like image shooting
- *Long operating time; 300 minutes in HDV mode and 340 minutes in DVCAM/DV mode with the NP-QM91D battery
- *Expanded focus function for easy confirmation of focus setting during manual focusing
- *Peaking function to enhance the outline of the image in the viewfinder for easy manual focusing
- *Zebra function for easy manual exposure control
- *Quick REC function to shorten the time until the recording starts from stop mode
- *Status check function for easy confirmation of various parameters of camera setting menus
- *Personal menu function to allows operators to customise the setting menu to display frequently used menu items
- *Battery info function to display the battery charge level and remaining recording time
- *Super night shot function to capture images in black and white using a built-in infrared light
- *Skin tone detail function
- *Black stretch function



Supplied Accessories

- AC-L15 AC Adaptor
- Power cord
- NP-FM50 InfoLITHIUM Rechargeable battery pack
- Lens hood with lens cover
- RMT-831 Wireless Remote Commander unit
- A/V connecting cable with S video
- Component video cable
- USB cable
- Memory Stick Duo (16 MB)
- Memory Stick Duo adaptor
- ECM-NV1 Monaural electret condenser microphone
- XLR Audio adaptor
- Shoulder strap
- Operating instructions

Optional Accessories

- NP-QM71D InfoLITHIUM Rechargeable Battery Pack
- NP-QM91D Rechargeable Battery Pack
- VCL-HG2037Y 2.0x Tele Conversion Lens
- VCL-HG0737Y 0.7x Wide Conversion Lens
- LCH-HCE Hard Carrying Case
- VMC-30VC Cable 3m Component Video Cable
- VMC-30FS Cable 3m Multi AV Cable (with S Video)
- PHDVM-63DM tape DigitalMaster Mini Cassette Tape
- RM-1BP LANC Remote Controller
- VCT-PG11RMB Tripod with the RM-1BP
- LANC Remote Controller
- UWP-C1 UHF Synthesized Wireless Microphone Package

Specifications

Camera section

Lens

Carl Zeiss Vario-Sonnar T* zoom lens,
10x (optical), f = 5.1 to 51 mm, f = 40 to
400 mm in 16:9 mode and 49.3 to 493 mm
in 4:3 mode (full scan mode on)*
f = 41 to 480 mm in 16:9 mode and 50 to
590 mm in 4:3 mode (full scan mode off)*
f = 40 to 400 mm in 16:9 mode and 37 to
370 mm in 4:3 mode (still picture mode)*
f = 1.8 to 2.1, filter diameter: 37 mm

Focus

Auto, manual, spot focus
(touch panel control)

Imaging device

1-chip, 1/3-inch type primary colour
CMOS sensor

Picture elements

Approx. 2,969,000 pixels (total)

Shutter speed

1/3, 1/6, 1/12, 1/25, 1/50, 1/60, 1/100,
1/120, 1/150, 1/215, 1/300, 1/425, 1/600,
1/1000, 1/1250, 1/1750, 1/2500, 1/3500,
1/6000, 1/10000 s

Minimum illumination

7 lx with F1.8

VTR section

Recording format

1080/50i, 576/50i

Play out/Down conversion format

1080/50i, 576/50i, 576/50P

Tape speed

HDV/DV SP

Max. 18.812 mm/s with
PHDVM-63DM cassette

DVCAM

Max. 28.218 mm/s with
PHDVM-63DM cassette

Playback/Recording time

HDV/DV SP

Max. 63 min with
PHDVM-63DM cassette

DVCAM

Max. 41 min with
PHDVM-63DM cassette

Fast forward/Rewind time

Approx. 2 min 40 s with PHDVM-63DM
cassette (using a fully charged battery)
Approx. 1 min 45 s with PHDVM-63DM
cassette (using an AC adaptor)

Input/Output connectors

Audio/Video input/output

A/V OUT jack, 10-pin connector
Composite video: 1 Vp-p,
75 Ω unbalanced, sync negative
Y: 1 Vp-p, 75 Ω unbalanced, sync negative
C: 0.3 Vp-p, 75 Ω unbalanced
Audio: 327 mV, input impedance more than
47 k Ω , output impedance less than 2.2 k Ω

Component video output

COMPONENT OUT jack
Y: 1 Vp-p (0.3 V, sync negative),
75 Ω unbalanced
Pr/Pb (Cr/Cb): 525 mVp-p (75% colour
bar)

HDV/DV input/output

i.LINK interface
(IEEE 1394, 4-pin connector)

XLR audio input

XLR 3-pin female x 2, 327 mV, -60 dBu:
3 k Ω , +40 dBu: 10.8 k Ω ,
power supply: approx. 48 V

Headphone

Stereo minijack (\varnothing 3.5 mm) x 1

MIC

Minijack x 1, 0.388 mV, low impedance
with DC 2.5 to 3.0 V, output impedance
6.8 k Ω (\varnothing 3.5 mm), stereo type

LANC

Stereo mini-minijack (\varnothing 2.5 mm) x 1

USB

Mini-B x 1

Built-in input/output devices

LCD viewfinder

0.44-inch type, approx. 252,000
(1120 x 225) pixels, hybrid type,
16:9 aspect ratio

LCD monitor

2.7-inch type, approx. 123,200
(560 x 220) pixels, hybrid type,
16:9 aspect ratio

Microphone

Stereo type, noise reduction on/off

Speaker

\varnothing 16 mm

General

Mass

Approx. 670 g (1 lb 7 oz) (camcorder only)

Power requirements

DC 7.2 V (battery pack),
DC 8.4 V (AC adaptor)

Power consumption

HDV

Approx. 5.6 W (recording mode with
LCD viewfinder on)

DVCAM/DV

Approx. 5.1 W (recording mode with
LCD viewfinder on)

Operating temperature

0 to 40°C (32 to 104°F)

Storage temperature

20 to +60 °C (-4 to 140 °F)

* These values are calculated to be
equivalent to 35 mm film.

SONY

DVCAM Camcorders

DSR-450WSPL	108
DSR-400PK	110
DSR-400PL	111
DSR-250P/1	112
DSR-PD170P	114

DSR-450WSPL DVCAM Camcorder

Features

*2/3-inch type power HAD EX CCD *Switchable aspect ratio (16:9/4:3) *12-bit A/D conversion *Advanced digital signal processing (ADSP) *DVCAM/DV selectable recording *Long recording time: up to 276 minutes at DV (SP) mode and up to 184 minutes at DVCAM mode with a standard-size cassette *High-Quality audio recordings *Film-like images with progressive mode *Digital output to external devices via an i.LINK interface *Quick FF/REW capabilities *Rugged and ergonomic design *Compact and lightweight: approximately 6.5 kg (14 lb 5 oz) including the DXF-801 viewfinder, microphone, BP-GL65 battery, mini-size DVCAM cassette and VCL-917BY lens (supplied with the DSR-400PK package) *Low power consumption of approximately 17 W (with the DC 12 V power supply, REC mode, viewfinder and LCD monitor off) *User-friendly menu controls *Optical ND filter and electric CC filter *Battery-remaining display on the viewfinder and LCD monitor *Intelligent light system *2.5-inch (*1) type color LCD monitor *Supplied DXF-801 viewfinder *User assignable function-buttons *Turbo gain: max. 36 dB *Slow shutter mode: 1 to 8 to 16 frames accumulation *Optional camera adaptor for wireless microphone receiver *Memory stick system stores camera setup parameters *Adjustable shoulder pad *Versatile interfaces: SDI output and composite input with the optional boards *Camera remote control via Sony RM-B150/B750 *TruEye processor *Adaptive highlight control *Triple skin tone detail control *Electronic soft focus *Selectable gamma table including film-like gamma *Variable black gamma range *Auto Tracing White balance (ATW) *Multi-matrix function *Color temperature control *Interval recording

(*1) Viewable area measured diagonally.



Supplied Accessories

DXF-801 Viewfinder with microphone holder (1)
VCT-U14 Tripod Adaptor (1)
External microphone (1)
Shoulder strap (1)

Optional Accessories

LC-H300 Hard Carrying Case
CA-WR855 Camera Adaptor
WRR-855A UHF Synthesized Diversity Tuner
ECM-670 Electret Condenser Microphone
ECM-672 Electret Condenser Microphone
DX-51 5-inch Monochrome Viewfinder
RM-B750 Remote Control Unit
RM-B150 Remote Control Unit
BP-GL95 Rechargeable Lithium-ion Battery Pack
BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-L60S Rechargeable Lithium-ion Battery Pack
BC-L70 Li-ion Battery Charger

BC-M150 Ni-MH & Li-ion Battery Charger
AC-DN10 AC Adaptor/Charger
LC-DS300SFT Soft Carrying Case
LCR-1 Camera Rain Cover
CCFD-L Cables DV Cables (6-pin to 4-pin)
CCF-L Cables DV Cables (6-pin to 6-pin)
CBK-SC01 Analog Composite Input Board
CBK-SD01 SDI Output Board

Specifications

GENERAL

Power requirements

DC 12 V (11 to 17V)

Power consumption

Approx. 17 W (with DC 12 V power supply, REC mode, viewfinder off, LCD monitor off)

Operating temperature

0 to +40 °C (+32 to +104 °F)

Storage temperature

-20 to +60 °C (-4 to +140 °F)

Operating humidity

25 to 85%

Mass Approx.

6.5 kg (14 lb 5 oz) (with viewfinder, microphone, BP-GL65 battery, mini-size DVCAM cassette, VCL-917BY lens)

Continuous operating time

Approx. 300 min. with BP-GL95 battery, REC mode

SIGNAL INPUTS/OUTPUTS

Video inputs

Analog composite

BNC, 1.0 Vp-p, 75 Ω
(with the CBK-SC01)

Genlock video

BNC, 1.0 Vp-p, 75 Ω

Audio input (CH-1/2)

XLR-3 (2), female, -60 dBu/+4 dBu,
10 k Ω , balanced

Microphone input

XLR-3, female, -60 dBu

Time code input

BNC, 0.5 to 18 Vp-p, 10 k Ω

Video outputs

SDI

BNC, 0.8 Vp-p, 75 Ω
(with the CBK-SD01)

i.LINK

i.LINK, 6-pin IEEE 1394-based

Analog composite

BNC, 1.0 Vp-p, 75 Ω

Audio output

(CH-1/2) Pin-jacks (2), -10dBu, 47 k Ω

Time code output

BNC, 1.0 Vp-p, 75 Ω

Monitor output

BNC, 1.0 Vp-p, 75 Ω

Earphone output

Mini-jack

OTHER INPUTS/OUTPUTS

Lens

12-pin

VF

20-pin

Remote

8-pin

Wireless microphone

7-pin

Light

2-pin, DC 12 V, max. 50 W

DC input

XLR-4-pin, male, DC 11 to 17 V

DC output

4-pin (for wireless microphone receiver),
DC 12 V (max. 0.2 A)

Battery terminal

5-pin

CAMERA PERFORMANCE

Pickup device

Pickup device

3-chip 2/3-inch type Power HAD EX CCD

Aspect ratio

16:9/4:3 switchable

Total picture elements (H x V)

1038 x 1188

Effective picture elements (H x V)

980 x 1064

Optical system

Spectral system

F1.4 prism (with quarts filter)

Built-in filters

1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND

Lens mount

2/3-inch type Sony bayonet mount

Electrical characteristics

Signal system

PAL color system

Scan format

625/50i, 625/25P

Sync system

Internal and External with the VBS or
BS signal

A/D conversion

12 bits

Sensitivity

F11 (typical) (2000 lx, 89.9% reflectance)

Minimum illumination

0.5 lx (F1.4 lens, +36 dB gain,
shutter off), 0.03 lx (with slow shutter
mode at 16 frames accumulation)

Smear level

-140 dB (typical)

Video S/N ratio

63 dB (typical)

Horizontal resolution

850 TV lines (4:3 mode),
800 TV lines (16:9 mode)

Vertical resolution

530 TV lines (with EVS) and
480 TV lines (without EVS)
at 625/50i mode
575 TV lines at 625/25P mode

Shutter speed

1/60, 1/125, 1/250, 1/500, 1/1000,
1/2000 s at 625/50i mode
1/33, 1/50, 1/100, 1/125, 1/250, 1/500,
1/1000, 1/2000 s at 625/25P mode

ECS

50 to 6000 Hz at 625/50i mode
25 to 6000 Hz at 625/25P mode

Slow shutter

1/25, 1/12.5, 1/8.3, 1/6.3, 1/5, 1/4.2,
1/3.6, 1/3.1, 1/1.6 s (1 to 8, 16 frames)

Gain selection

-3, 0, 3, 6, 9, 12, 18, 24, 30, 36 dB
(for GAIN LOW, GAIN MID, GAIN HIGH
and GAIN TURBO positions)

VIDEO PERFORMANCE

Recording format

Video

DVCAM/DV (SP) (25 Mb/s)

Audio

2 ch/16-bit/48 kHz, 2 ch/12-bit/32 kHz

Record/playback time

DVCAM: 184 min (with the PDV-184ME),
DV SP: 276 min (with the PDV-184ME)

Fast forward time

Approx. 45 s (with the PDVM-40ME),
approx. 2 min 30 s (with the PDV-184ME)

Rewind time

Approx. 45 s (with the PDVM-40ME),
approx. 2 min 30 s (with the PDV-184ME)

Recommended recording media

PDV-184ME/124ME/94ME/64ME/34ME/
184N/124N/94N/64N/34N, PDVM-184ME/
124ME/94ME/64ME/34ME/184N/124N/
94N/64N/34N

Sampling frequency

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization

8 bits

MICROPHONE

Frequency response

48 kHz: 20 Hz to 20 kHz +0.5/-1.0 dB,
32 kHz: 20 Hz to 14.5 kHz +0.5/-1.0 dB

Dynamic range

More than 80 dB

Distortion (at 1 kHz, emphasis ON, reference level)

Less than 0.12%
(at 1 kHz, reference level, 48 kHz)

BUILT-IN LCD MONITOR

Built-in LCD monitor 2.5-inch type color

LCD monitor, resolution:

214,000 (964 x 222) pixels

VIEWFINDER

CRT

1.5-inch type monochrome

Indicators

REC TALLY (2), TAKE TALLY, BATT,
SHUTTER, GAIN UP

Horizontal resolution

600 TV lines

MICROPHONE

Microphone

Electret condenser microphone
(detachable)

DSR-400PK DVCAM Camcorder

Features

Three 2/3-inch type Power HAD EX CCDs *2.5-inch colour LCD monitor *4:3 aspect ratio *12-bit A/D conversion *Advanced DSP (Digital Signal Processing) *TruEye precessing for faithful colour reproduction *Skin Tone Detail with auto detection of active area *Playback capability of DV recorded tapes (SP mode only) *Long recording time : up to 184 minutes with a standard-size cassette and 40 minutes with a minisize cassette *Interval recording *Scene file store on Memory Stick for quick and convenient set-up *Assignable buttons *i.LINK (DV) output *INFO battery system with BP-GL95/GL65 batteries for precise battery remain indication *Adjustable shoulder pad (The package includes Fujinon 17x zoom lens)



Supplied Accessories

DXF-801 Viewfinder
Microphone
VCT-U14 Tripod Adaptor
VCL-917BY Zoom Lens
Shoulder strap
Lens mount cap
Operating instructions
VCL-917BY Zoom Lens

Optional Accessories

LC-H300 Hard Carrying Case
CA-WR855 Camera Adaptor
WRR-855A UHF Synthesized Diversity Tuner
ECM-670 Electret Condenser Microphone
ECM-672 Electret Condenser Microphone
DX-51 5-inch Monochrome Viewfinder
BP-GL95 Rechargeable Lithium-ion Battery Pack
BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-L60S Rechargeable Lithium-ion Battery Pack
BC-L70 Li-ion Battery Charger
BC-M150 Ni-MH & Li-ion Battery Charger
AC-DN10 AC Adaptor/Charger
LC-DS300SFT Soft Carrying Case
LCR-1 Camera Rain Cover
CCFD-L Cables DV Cables (6-pin to 4-pin)
CCF-L Cables DV Cables (6-pin to 6-pin)

DSR-400PL DVCAM Camcorder

Features

Three 2/3-inch type Power HAD EX CCDs *2.5-inch colour LCD monitor *4:3 aspect ratio *12-bit A/D conversion *Advanced DSP (Digital Signal Processing) *TruEye precessing for faithful colour reproduction *Skin Tone Detail with auto detection of active area *Playback capability of DV recorded tapes (SP mode only) *Long recording time : up to 184 minutes with a standard-size cassette and 40 minutes with a minisize cassette *Interval recording *Scene file store on Memory Stick for quick and convenient set-up *Assignable buttons *i.LINK (DV) output *INFO battery system with BP-GL95/GL65 batteries for precise battery remain indication *Adjustable shoulder pad
*(The package does not include lens)



Supplied Accessories

DXF-801 Viewfinder
Microphone
VCT-U14 Tripod Adaptor
Shoulder strap
Lens mount cap
Operating instructions

Optional Accessories

LC-H300 Hard Carrying Case
CA-WR855 Camera Adaptor
WRR-855A UHF Synthesized Diversity Tuner
ECM-670 Electret Condenser Microphone
ECM-672 Electret Condenser Microphone
DX-51 5-inch Monochrome Viewfinder
BP-GL95 Rechargeable Lithium-ion Battery Pack
BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-L60S Rechargeable Lithium-ion Battery Pack
BC-L70 Li-ion Battery Charger
BC-M150 Ni-MH & Li-ion Battery Charger
AC-DN10 AC Adaptor/Charger
LC-DS300SFT Soft Carrying Case
LCR-1 Camera Rain Cover
CCFD-L Cables DV Cables (6-pin to 4-pin)
CCF-L Cables DV Cables (6-pin to 6-pin)

DSR-250P/1 DVCAM Camcorder

Features

*Compact and lightweight: 4.4 kg (9 lb 11 oz) *Newly developed 1/3-inch type CCDs for accurate color reproduction *Capable of both interlace scan, for moving images, and progressive scan, for still images or shooting a moving subject*¹ and exporting a frame of the image as a still picture *DSP (Digital Signal Processing) *2.5-inch (200,000 dot) color LCD monitor *12x lens*² with Super SteadyShot system *New, high-resolution 1.5-inch black & white viewfinder *16:9 recording mode available (electronically processed) *Recording and playback capability with standard and mini-size DVCAM and DV tapes (SP mode only) *Three XLR audio input connectors for professional microphones (one at front, two at rear) *Audio dubbing capability (48 kHz/16-bit or 32 kHz/12-bit selectable) *Long recording time: 184 minutes with a standard-size cassette in DVCAM mode, or 270 minutes in DV SP mode *Time/date data superimposition on output pictures *Digital still camera functions with Memory Stick *Light output (DC 12 V, max. 30 W) and additional DC 12 V out for optional accessories *Time code preset capability *.i.LINK (DV) interface *LANC interface for simple editing with a LANC-equipped recorder or editing system *Supplied RMT-811 Remote Commander

*¹ When recording moving images in progressive scan mode, the motion will display some jitter since the picture is read/output every 1/12.5 second. *² Digital zoom of 24x or 48x available via menu selection.

Supplied Accessories

DXF-801 Electronic Viewfinder (1)
ECM-NV1 Monaural Microphone (1)
RMT-811 Remote Commander and R6
Batteries (2)
Lens Hood (1)
Lite Hood Cap (1)

Optional Accessories

CAC-12 Camera Microphone Holder
VCT-U14 Tripod Adaptor
BC-M150 Ni-MH & Li-ion Battery Charger
BC-L70 Li-ion Battery Charger
BP-L60S Rechargeable Lithium-ion Battery
Pack
AC-DN2B AC Adaptor
VMC-IL46 cables 4-pin <-> 6-pin i.LINK
Cable
VMC-IL66 cables 6-pin <-> 6-pin i.LINK
Cable
CCF-L Cables DV Cables (6-pin to 6-pin)
CCFD-L Cables DV Cables (6-pin to 4-pin)
VCL-HG0758 Wide Conversion Lens for the
DSR-250P/1, DSR-170
VCL-HG1758 Tele Conversion Lens
VF-58PK Filter Kit
ECM-670 Electret Condenser Microphone
ECM-670 Electret Condenser Microphone (E)
ECM-672 Electret Condenser Microphone
ECM-672 Electret Condenser Microphone (E)



Specifications

GENERAL

Power requirements:

DC 12 V (11 to 17 V)

Power consumption:

10.5 W using the viewfinder

12.1 W using the viewfinder and LCD monitor

Operating temperature:

0 to 40 °C (32 to 104 °F)

Storage temperature:

-20 to 60 °C (-4 to 140 °F)

Dimensions (W x H x D):

241.7 x 251.2 x 508.8 mm (9 5/8 x 10 x

20 1/8 inches) including microphone

Mass (camcorder only):

Approx. 4.4 kg (9 lb 11 oz)

CAMERA PARTS

Lens:

12:1 Variable Speed (1.2-22 s) zoom lens

F = 6.0 to 72.0 mm; F1.6 to 2.4; Filter

Diameter 58mm

Focus:

Auto/Manual (ring)/Infinity/One push auto

Imaging device:

Three 1/3-inch type CCDs, 450,000 pixels,

Progressive/Interlace Scan

White balance:

Auto/One-push(Memory A/Memory

B)/Outdoor (5800 K)/Indoor (3200 K)

Shutter speed:

1/3, 1/6, 1/12, 1/25, 1/50, 1/60, 1/100,

1/120, 1/150,

1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250,

1/1750,

1/2500, 1/3500, 1/6000, 1/10000 second

Exposure:

Auto/Manual

Minimum illumination:

2 lx

Horizontal resolution:

530 TV lines

Viewfinder:

1.5-inch type Black & White CRT, Zebra

Pattern (DXF-801)

VTR PARTS

Audio signal

Rec: 48 kHz/16-bit, 32 kHz/12-bit

Playback: 48 kHz/16-bit, 32 kHz/12-bit,

32 kHz/16-bit, 44.1 kHz/16-bit

Built-in speaker:

Dynamic Speaker

LCD:

TFT Active Matrix, 2.5-inch, 200,640 dots

(880 x 228)

Tape speed:

Approx. 28.2 mm/s (DVCAM mode)

Approx. 18.8 mm/s (DV SP mode)

Maximum recording time:

184 minutes (DVCAM mode), 270 minutes

(DV SP mode) with PDV-184ME cassette

40 minutes (DVCAM mode), 60 minutes

(DV SP mode) with PDVM-40ME cassette

Video signal:

CCIR Standard, PAL color system

Connectors

Video IN/OUT:

RCA pin: (1)

Luminance signal: 1 Vp-p, 75 Ω ,

unbalanced, sync negative

Monitor OUT:

BNC pin: (1)

Luminance signal: 1 Vp-p, 75 Ω ,

unbalanced, sync negative

Audio IN/OUT

RCA pin: (2)

245 mV, Output impedance with less than

2.2 k, Input impedance with more than

47 k

S-Video IN/OUT:

Mini-DIN 4 pin: (1)

Luminance signal: 1 Vp-p, 75 Ω ,

unbalanced, Chrominance signal: 0.3 Vp-p

(PAL)

Audio IN:

XLR 3-pin (female) x 3, -60 dBu 6.8 k,

+4 dBu 6.8 k (0 dBu = 0.775 V rms)

DV IN/OUT:

6-pin (with lock): (1)

LANC:

Stereo minimini jack (2.5 mm) : (1)

Headphone:

Stereo mini jack (3.5 mm): (1)

External DC IN:

12 V, XLR 4-pin (male): (1)

DC OUT for Light:

12 V, max. 30 W: (1)

DC OUT:

12 V, 4 pin: (1)

DSR-PD170P DVCAM Camcorder

The DSR-PD170P is a 1/3-inch type 3CCD Digital Camcorder that uses the DVCAM format. Like its predecessor, the market acclaimed DSR-PD150P, the DSR-PD170P addresses a broad spectrum of applications from video journalism, wedding and event videography, corporate and training productions, up to broadcast newsgathering, areas where picture quality, reliability, and mobility are prime concerns. In addition to inheriting all the attractive features of the DSR-PD150P, the DSR-PD170P offers a range of enhancements for further improved audio and video quality and operability, and adds new accessories to meet even more diverse shooting scenarios. The DSR-PD170P is designed to become a handy tool for professional shooting in a wide range of applications.



Features

- *Three 1/3-inch type CCDs Camera System
- *Advanced HAD Technology
- *Low Light Shooting
- *Optical 12x Zoom Lens
- *Optical Super SteadyShot System
- *Large 180,000-dot LCD Precision Black & White Viewfinder
- *DVCAM Recording
- *16:9 Widescreen Acquisition Mode
- *DVCAM/DV Selectable Recording
- *2 Ch. XLR Audio Input and Supplied Directional Microphone
- *16-bit/12-bit PCM Digital Sound and Audio Dub Capability
- *Newly Developed Hybrid LCD Monitor with a High Resolution of more than 210,000 Pixels
- *Simultaneous Operation of LCD Monitor and Viewfinder
- *Large-sized Handle
- *On-handle Zoom Lever and Rec. Start/Stop Button
- *Supplied Lens Hood with Built-in Lens Cap
- *Supplied Wide Conversion Lens and Additional Lens Hood

Supplied Accessories

- AC-L15 AC Adaptor (1)
- ECM-NV1 Electret Condenser Microphone (1)
- NP-F330 Info LITHIUM Rechargeable Battery Pack (1)
- VCL-HG0758 Wide Conversion Lens (1)
- LSF-S58 Lens Hood for Wide Conversion Lens and Hood Cap (1)
- Lens Hood with Built-in Lens Cap (1)
- RMT-811 Remote Commander and R6 Batteries (2)
- Carrying Belt (1)
- i.LINK Cable Strap (1)
- Stereo AV Cable (1)

Optional Accessories

- 2NP-F970/B InfoLITHIUM Rechargeable Battery Pack
- NP-F570 InfoLITHIUM Rechargeable Battery Pack
- NP-F770 InfoLITHIUM Rechargeable Battery Pack
- NP-F970 InfoLITHIUM Rechargeable Battery Pack
- AC-VQ1050B Battery Charger
- VCL-HG1758 Tele Conversion Lens
- VF-58PK Filter Kit
- VCT-PG11RMB Tripod with RM-1BP
- RM-1BP LANC Remote Controller
- VMC-IL44 cables 4-pin <-> 4-pin i.LINK Cable
- VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable
- PDV-ME Digital Videocassette Tapes
- MSA-A "Memory Stick" IC Memory Media

- UWP-C1 UHF Synthesized Wireless Microphone Package (62CE7)
- UWP-C1 UHF Synthesized Wireless Microphone Package (67CE7)
- ECM-670 Electret Condenser Microphone (U)
- ECM-672 Electret Condenser Microphone (U)

Specifications

GENERAL

Power Requirements:

DC 7.2 V (Battery), DC 8.4 V (AC adaptor)

Power Consumption:

Rec. with LCD viewfinder only:

4.7 W

Rec. with LCD monitor only:

5.4 W

Rec. with LCD viewfinder and LCD monitor:

5.7 W

Playback on LCD:

4.1 W

Operating Temperature:

0 to 40 °C (32 to 104 °F)

Storage Temperature:

-20 to 60 °C (-4 to 140 °F)

Dimensions (W x H x D):

118 x 180 x 393 mm (4 3/4 x 7 1/8 x 15 1/2 inches) (camcorder only)

133 x 180 x 456 mm (5 1/4 x 7 1/8 x 18 inches) including microphone

Mass (camcorder only):

Approx. 1.6 kg (3 lb 6 oz)

CAMERA PARTS

Lens:

12:1 Variable Speed (1.2-22 sec.) zoom

lens (48x digital zoom)

F =6.0 to 72.0 mm; F1.6 to 2.4; Filter

Diameter 58 mm

Focus:

Auto/Manual (ring)/Infinity/One push auto

Imaging Device:

Three 1/3-inch type CCDs

Gross 450,000 pixels/effective 400,000 pixels

Progressive/Interlace Scan

White Balance:

Auto/One-push/Outdoor (5800 K)/Indoor (3200 K)

Shutter Speed:

1/3, 1/6, 1/12, 1/25, 1/50, 1/60, 1/100,

1/120, 1/150, 1/215

1/300, 1/425, 1/600, 1/1000, 1/1250,

1/1750, 1/2500,

1/3500, 1/6000, 1/10000 second

Exposure:

Auto/Manual

Minimum Illumination:

1 lx with F1.6 at 18 dB gain

Horizontal Resolution:

530 TV lines

Viewfinder:

180,000 dot Black & White LCD

Horizontal Resolution:

500 TV lines

VTR PARTS

Audio Signal

Rec: 48 kHz/16-bit, 32 kHz/12-bit

Playback: 48 kHz/16-bit, 32 kHz/12-bit,

32 kHz/16-bit, 44.1 kHz/16-bit

Built-in Speaker:

Dynamic Speaker, ϕ 20 mm

LCD:

Hybrid, 2.5-inch type, 211,200 dots

(960 x 220)

Tape Speed:

Approx. 28.2 mm/s (DVCAM mode)

Approx. 18.8 mm/s (DV SP mode)

Maximum Recording Time:

40 minutes (DVCAM mode)

60 minutes (DV SP mode, with

PDVM-40ME)

Video Signal:

CCIR Standard, PAL color system

Connectors

Video IN/OUT

RCA pin: (1)

Luminance signal: 1 Vp-p, 75 Ω ,

unbalanced, sync negative

Audio IN/OUT

RCA pin: (2), 327 mV

Output impedance with less than 2.2 k Ω

Input impedance with more than 47 k Ω

S-Video IN/OUT

Mini-DIN 4 pin : (1)

Luminance signal: 1 Vp-p, 75 Ω ,

unbalanced

Chrominance signal: 0.3 Vp-p

Audio IN

XLR 3-pin female: (2). -60 dBu, 3 k Ω ,

+4 dBu, 10 k Ω (0 dBu = 0.775 V rms)

Digital input/output

i.LINK (DV): 4-pin (1)

Others

LANC: Stereo mini jack (2.5 mm): (1)

Headphone: Stereo mini jack (3.5 mm): (1)

External DC IN: (1) 8.4 V for AC-L15 AC

adaptor

SONY

Camcorder Accessories/Peripherals

AC-DN10	118
AC-DN2B	119
AC-SQ950B	120
AC-VQ1050B	120
BC-M150	121
BC-L70	122
BP-GL65	123
BP-GL95	124
BP-L60S	125
CBK-MB01	126
HKDW-702/1	126
HKDW-703/1	126
HKDW-705	127
HVL-20DW2	127
HVL-F10	127
HVL-FH1100	128
LC-777	128
LC-DN7	128
LCH-FXA	128
LCH-TRV950	128
LCH-VX2000A	129
LCR-FXA	129
LCR-VX2000A	129
LCS-VCB	129
MSDW-903	129
MSDW-904	129
NP-F570	130
NP-F770	130
2NP-F970/B	130
2NP-QM91D/B	130
RM-1BP	131
NP-QM91D	131
RM-B150	131
RM-B750	132
VCL-0737W	133
VCL-HG0872	133
VCT-PG11RMB	133
VCT-FXA	134
VF-72CPK	134

AC-DN10 AC Adaptor/Charger

Features

*Compact and lightweight AC adaptor/charger *Maximum 100 W DC power supply *V-mount mechanism for direct attachment to compatible camcorders *XLR-4-pin output to power other equipment *Charging capability of Sony V-mount lithium-ion batteries (BP-GL95/GL65/L60S) *Quick charging - A BP-GL95 can be fully charged within 145 minutes *Can charge batteries while supplying AC power to other equipment

Applicable Models

DSR-250P DVCAM Camcorder
DSR-400PK DVCAM Camcorder
DSR-400PL DVCAM Camcorder
DSR-450WSPL DVCAM Camcorder
DVW-970P Digital Betacam Camcorder
HDW-730S HDCAM Camcorder
HDW-750P HDCAM Camcorder
MSW-970P MPEG IMX Camcorder
PDW-510 XDCAM Camcorder
PDW-510P XDCAM Camcorder
PDW-530 XDCAM Camcorder
PDW-530P XDCAM Camcorder
WLL-CA50 Wireless Camera Transmitter
WLL-CA55 Wireless Camera Transmitter

Supplied Accessories

Operation manual (1)
AC power cord (1)

Specifications

Power requirements:
AC 100 V to 240 V
DC output:
16.7 V, 6 A
Operating temperature:
0 to 40 °C (32 to 104 °F)
Mass:
800 g (1 lb 12 oz)
Dimensions (W x H x D):
101 x 160 x 37 mm
(4 x 6 3/8 x 1 1/2 inches)
Charging time
BP-GL95:
145 minutes
BP-GL65:
155 minutes
BP-L60S
155 minutes

Eco-info:

Lead-free solder is used for soldering.
Halogenated flame retardants are not used
in the cabinets and the printed wiring
boards.



AC-DN2B AC Adaptor

Features

*Compact and lightweight AC adaptor/charger *Maximum 150 W DC power supply *V-mount mechanism for direct attachment to compatible camcorders *XLR-4-pin output to power other equipment *Up to 85% charging capability of Sony V-mount lithium-ion batteries (BP-GL95/GL65/L60S)



Applicable Models

DSR-250P/1 DVCAM Camcorder
DSR-400PK DVCAM Camcorder
DSR-400PL DVCAM Camcorder
DSR-450WSPL DVCAM Camcorder
DVW-970P Digital Betacam Camcorder
HDW-730S HDCAM Camcorder
HDW-750P HDCAM Camcorder
MSW-970P MPEG IMX Camcorder
PDW-510 XDCAM Camcorder
PDW-510P XDCAM Camcorder
PDW-530 XDCAM Camcorder
PDW-530P XDCAM Camcorder
SRPC-1 HD Video Processor
SRW-1 HDCAM-SR Portable VTR
WLL-CA50 Wireless Camera Transmitter
WLL-CA55 Wireless Camera Transmitter

Supplied Accessories

DC power cord (1)
Operation manual (1)

Optional Accessories

CCDD-X2 4-pin/4-pin DC Power Cord for
Portable Video Equipment
BKW-L601 Battery Adaptor

Specifications

Power requirements:
AC 100 to 240 V
Rated power output (DC):
150 W
Voltage output (DC):
16.7 V
Current output (DC):
9 A (on regulation)
Mass:
950 g (2 lb 2 oz)
Dimensions:
101(W) x 169(H) x 70(D)mm
(4 x 6 3/4 x 2 7/8 inches)
Charging time:
BP-GL95
155 minutes (to about 85% capacity)
BP-GL65
100 minutes (to about 85% capacity)
BP-L60S
100 minutes (to about 85% capacity)

AC-SQ950B AC Adaptor/Charger

Applicable Models

DSR-PDX10P

HVR-A1E

Specifications

Dimensions:

W 123 x H 48 x D 135 mm (4 7/8 x 1 15/16
x 5 3/8 inches)

Mass:

390 g (13.8 oz)

AC power requirement:

AC 100 V to 240 V, 50 Hz/60 Hz

DC power requirement:

12/24 V

Power consumption:

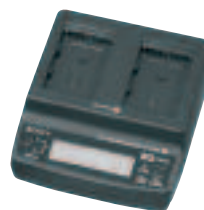
35 W

Operating Temperature:

0°C to 40°C (32°F to 104°F)

Storage Temperature:

-20°C to 60°C (-4°F to +140°F)



AC-VQ1050B AC Adaptor/Charger

Features

*Quick Charge *Intelligent Display

*DC Charge

Applicable Models

DSR-PD170P

HVR-Z1E

HVR-M10E

Specifications

Dimensions:

W 123 x H 53 x D 135 mm
(4 7/8 x 2 1/8 x 5 3/8 inches)

Mass:

390 g (13.8 oz)

AC power requirement:

AC 100 V to 240 V

Frequency:

50 Hz/60 Hz

Power consumption:

35 W

Operating Temperature:

0°C to 40°C (32°F to 104°F)

Storage Temperature:

-20°C to 60°C (-4°F to +140°F)



BC-M150 Ni-MH & Li-ion Battery Charger

Features

*Battery charger for BP-L/IL/GL Series lithium-ion battery packs and BP-M100/M50 nickel metal hydride battery packs *Up to four battery packs can be charged simultaneously *LED indicators to indicate charging status, and discharge ('refresh') status of a nickel metal hydride battery *LCD screen to indicate information of connected batteries such as battery reserve, charge time for full charge, charge/discharge cycles (*1) *DC power output to an external device via the XLR 4-pin connector

(*1) The BC-M150 indicates the battery reserve only when charging the BP-IL75/GL65/GL95/M50/M100 batteries.

Supplied Accessories

AC power cord (1)

Plug holder (1)

Optional Accessories

CCDD-X2 4-pin/4-pin DC Power Cord for

Portable Video Equipment

BP-GL65 Rechargeable Lithium-ion Battery Pack

BP-GL95 Rechargeable Lithium-ion Battery Pack

BP-L60S Rechargeable Lithium-ion Battery Pack

Specifications

Power requirements:

AC 120 to 240 V, 50/60 Hz

Power consumption:

Approx. 160 W

Output:

DC 16.8 V, 6 A (to the lithium-ion battery pack
or an external device via the XLR 4-pin)

DC 19.5 V, 5 A (to the nickel metal hydride
battery pack)

Charging time:

For one battery

BP-L40A: 125 min

BP-L60A: 140 min

BP-L90A: 180 min

BP-IL75: 140 min

BP-M50: 70 min

BP-M100: 100 min

For four batteries

BP-L40A: 305 min

BP-L60A: 340 min

BP-L90A: 450 min

BP-IL75: 340 min

BP-M50: 280 min

BP-M100: 400 min

Operating temperature:

0 to +40°C (+32 to +104°F)

Storage temperature:

-20 to +60°C (-4 to +140°F)

Operating/storage humidity:

20% to 90% RH

Mass:

3.5 kg (7 lb 11 oz)

Dimensions:

155 (W) × 120 (H) × 330 (D) mm

(6 1/8 × 4 3/4 × 13 inches)



BC-L70 Li-ion Battery Charger

Features

*Can charge Sony V-mount type lithium-ion batteries:
BP-GL95/GL65 *Up to two battery packs can be charged simultaneously *Quick and efficient charging
*One BP-GL95 battery can be fully charged within 145 minutes *Two BP-GL95 batteries can be fully charged within 220 minutes *Max. 100 W DC power supply (XLR-4-pin)



Supplied Accessories

AC Power Card
Plug holder
Operation manual

Optional Accessories

BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
BP-L60S Rechargeable Lithium-ion Battery Pack

Applicable Models

LMD-9050 LCD monitor
LMD-9030 LCD monitor
LMD-9020 LCD monitor
SRPC-1 HD Video Processor
SRW-1 HDCAM-SR Portable VTR
WLL-CA50 Wireless Camera Transmitter
PDW-D1 XDCAM Drive Unit
PDW-V1 XDCAM Mobile Deck
HDW-S280 HDCAM Compact Recorder
HDW-750P HDCAM Camcorder
MSW-970P MPEG IMX Camcorder PAL model
HDW-730S HDCAM Camcorder
DVW-970P Digital Betacam Camcorder
MSW-970 MPEG IMX Camcorder
DSR-400PL DVCAM Camcorder
DSR-450WSPL DVCAM Camcorder
DSR-400PK DVCAM Camcorder
DSR-50P Recorder
DVW-970 Digital Betacam Camcorder
PDW-510P XDCAM Camcorder
PDW-530P XDCAM Camcorder
PDW-510 XDCAM Camcorder
PDW-530 XDCAM Camcorder

Specifications

Power requirements
AC 100 to 240 V, 50/60 Hz
Power consumption
Less than 168 VA
DC output
Max. 16.8 V, 6 A
Operating temperature
0 to 45 °C (32 to 113 °F)
Dimensions (W x H x D)
60 x 237 x 134 mm
(2 3/8 x 9 3/8 x 5 3/8 inches)
Mass
Approx. 1.2 kg (2 lb 10 oz)
Charging time
For one battery
BP-GL95: 145 minutes
BP-GL65: 155 minutes
BP-L60S: 150 minutes
For two batteries
BP-GL95: 220 minutes
BP-GL65: 170 minutes
BP-L60S: 170 minutes

BP-GL65 Rechargeable Lithium-ion Battery Pack

Features

*Intelligent "INFO" battery that communicates digitally with Sony camcorders
 *Remaining capacity indication in viewfinder of the DVW-970/970P, HDW-750/750P, HDW-730/730S, MSW-970/970P, PDW-510/510P, PDW-530/530P camcorders
 *V-mount attaching mechanism for quick and easy battery change
 *Four-step green LED indicators for quick visual verification of the battery remaining capacity (more than 80%, 60%, 40%, 20%)
 *Four-step orange LED indicators for quick visual check of battery remaining capacity (below 20%, 15%, 10%, 5%)

When the BP-GL65 is used with camcorders other than those listed above, the battery alarm may not function properly.



Applicable Models

BC-L70 Li-ion Battery Charger
 BC-M150 Ni-MH & Li-ion Battery Charger
 DSR-400PK DVCAM Camcorder
 DSR-400PL DVCAM Camcorder
 DSR-450WSPL DVCAM Camcorder
 DVW-970P Digital Betacam Camcorder
 HDW-730S HDCAM Camcorder
 HDW-750P HDCAM Camcorder
 MSW-970P MPEG IMX Camcorder.
 SRPC-1 HD Video Processor
 SRW-1 HDCAM-SR Portable VTR
 WLL-CA50 Wireless Camera Transmitter
 WLL-CA55 Wireless Camera Transmitter

Supplied Accessories

Operation manual (1)

Specifications

Type of battery:

Rechargeable lithium-ion battery

Maximum voltage:

16.8 V

Nominal voltage:

14.4 V

Cell capacity:

65 Wh

Operating temperature (for discharge):

-10°C to +45°C (+14°F to +113°F)

Dimensions (W x H x D):

92 x 138 x 41 mm (3 5/8 x 5 1/2 x 1 5/8 inches)

Mass:

Approx. 550 g (1 lb 3 oz)

Eco-info:

Lead-free solder is used for soldering.
 Halogenated flame retardants are not used in the cabinets and the printed wiring boards.

BP-GL95 Rechargeable Lithium-ion Battery Pack

Features

*Intelligent "INFO" battery that communicates digitally with Sony camcorders
 *Remaining capacity indication on viewfinder of the DVW-970/970P, HDW-750/750P, HDW-730/730S, MSW-970/970P, PDW-510/510P, PDW-530/530P camcorders
 *V-mount attaching mechanism for quick and easy battery change
 *Four-step green LED indicators for quick visual verification of the battery remaining capacity (more than 80%, 60%, 40%, 20%)
 *Four-step orange LED indicators for quick visual check of battery remaining capacity (below 20%, 15%, 10%, 5%)

When the BP-GL95 is used with camcorders other than those listed above, the battery alarm may not function properly.



Applicable Models

BC-L70 Li-ion Battery Charger
 BC-M150 Ni-MH & Li-ion Battery Charger
 DSR-400PK DVCAM Camcorder
 DSR-400PL DVCAM Camcorder
 DSR-450WSPL DVCAM Camcorder
 HDW-730S HDCAM Camcorder
 HDW-750P HDCAM Camcorder
 DVW-970P Digital Betacam Camcorder
 MSW-970P MPEG IMX Camcorder
 PDW-510 XDCAM Camcorder
 PDW-510P XDCAM Camcorder
 PDW-530 XDCAM Camcorder
 PDW-530P XDCAM Camcorder
 PDW-V1 XDCAM Mobile Deck
 SRPC-1 HD Video Processor
 SRW-1 HDCAM-SR Portable VTR
 WLL-CA50 Wireless Camera Transmitter
 WLL-CA55 Wireless Camera Transmitter

Supplied Accessories

Operation manual (1)

Specifications

Type of battery:

Rechargeable lithium-ion battery

Maximum voltage:

16.8 V

Nominal voltage:

14.4 V

Cell capacity:

95 Wh

Operating temperature (for discharge):

-20°C to +45°C (-4°F to +113°F)

Dimensions (W x H x D):

92 x 138 x 41 mm (3 5/8 x 5 1/2 x 1 5/8 inches)

Mass:

760 g (1 lb 10 oz)

Eco-info

Lead-free solder is used for soldering.

Halogenated flame retardants are not used in the cabinets and the printed wiring boards.

BP-L60S Rechargeable Lithium-ion Battery Pack

Features

High capacity lithium-ion battery *Built-in LED capacity indicator for quick visual check of the battery reserve
*V-shoe attachment for quick and easy battery change
*Specially designed for compatibility with non info-lithium enabled products, so that the battery level and alarms will function correctly.

Applicable Models

BC-L70 Ni-MH & Li-ion Battery Charger
BC-M150 Ni-MH & Li-ion Battery Charger
DSR-250P DVCAM Camcorder
DSR-400PK DVCAM Camcorder
DSR-400PL DVCAM Camcorder
DSR-450WSPL DVCAM Camcorder
DSR-50P Recorder
DVW-970P Digital Betacam Camcorder
DXC-D50PH 3-chip CCD Portable Colour Camera
DXC-D50PK 3-chip CCD Portable Colour Camera
DXC-D50PL 3-chip CCD Portable Colour Camera
DXC-D50WSPL 3-chip CCD Portable Colour Camera
MSW-970P MPEG IMX Camcorder
WLL-CA50 Wireless Camera Transmitter
WLL-CA55 Wireless Camera Transmitter

Specifications

Battery type: Lithium-ion rechargeable battery
Maximum voltage: DC 16.8 V
Nominal voltage: DC 14.4 V
Capacity: 64.8 Wh
Operating temperature: -20 to +45 °C (-4 to +113 °F)
Dimensions (W x H x D): 101 x 37.3 x 168.7 mm (4 x 1 5/16 x 6 1/2 inches)
Mass Approx. 800 g (1 lb 10 oz)



CBK-MB01 Picture Cache Board

Features

*Up to eight seconds of video signal can be recorded before the REC button is pressed *Allows recordings to be made over long time periods

Applicable Models

DVW-970P Digital Betacam Camcorder

DVW-970 Digital Betacam Camcorder



HKDW-702/1 Down Converter Board

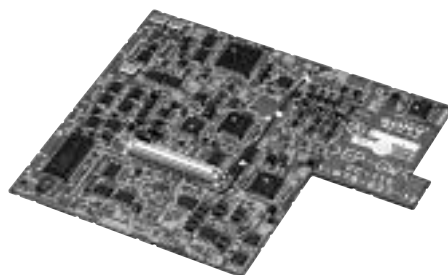
Features

*Used with the HDW-750P/730S series *Provides down-converted Standard Definition output *The output is available in SD-SDI or analog composite

Applicable Models

HDW-730S HDCAM Camcorder

HDW-750P HDCAM Camcorder



HKDW-703/1 Picture Cache Board

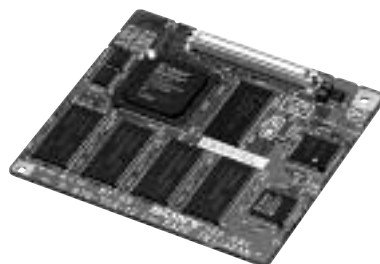
Features

*Used with the HDW-750P/730S series *Provides up to seven seconds of loop recording using solid state memory so that scenes happening prior to the press of REC start button are captured

Applicable Models

HDW-730S HDCAM Camcorder

HDW-750P HDCAM Camcorder



HKDW-705 Slow Shutter Board

Features

- *Used with the HDW-750P/730S camcorder
- *Allows to slow the shutter speed down to 64-frame period (1-, 2-, 3-, 4-, 5-, 6-, 7-, 8-, 16-, 32-, or 64-frame period)
- *Helps to make images in extremely dark environment
- *Helps to make create pictures by the intentional use of blurred images

Applicable Models

HDW-730S HDCAM Camcorder

HDW-750P HDCAM Camcorder



HVL-20DW2 Battery Video Light

Battery Video Light

Applicable Models

DSR-PD170P DVCAM Camcorder

HVR-Z1E HDV Camcorder



HVL-F10 Video Flash

Video Flash

Applicable Models

DSR-PDX10P DVCAM Camcorder

HVL-FH1100 Flash

The HVL-FH1100 camcorder flash docks on the camcorder's Intelligent Accessory Shoe, and the interface is designed so that when the camcorder's photo button is pressed, the light flashes in synchronization.

Applicable Models	Specifications	Connector:
DSR-PDX10P DVCAM Camcorder	Dimensions:	Intelligent Accessory Shoe
Supplied Accessories	W 68 x H 110 x D 92 mm (2 3/4 x 4 3/8 x 3 5/8 inches)	
Operation manual (1)	Mass:	
Pouch (1)	190 g (6.7 oz)	
	Battery Power Requirements:	
	AA Alkaline (4)	

LC-777 Carrying Case

Applicable Models
PDW-530P XDCAM Camcorder
PDW-510P XDCAM Camcorder
PDW-530 XDCAM Camcorder
PDW-510 XDCAM Camcorder

LC-DN7 Carrying Case

Applicable Models
DWW-970P Digital Betacam Camcorder
MSW-970P MPEG IMX Camcorder
HDW-730S HDCAM Camcorder
HDW-750P HDCAM Camcorder

LCH-FXA Hard Carrying Case

Features
*With its specially designed interior, this case can efficiently store the video camera and accessories.

Applicable Models
HVR-Z1E



LCH-TRV950 Hard Carrying Case

Features
*With its specially designed interior, this case can efficiently store the video camera and accessories.

Applicable Models	Specifications
DSR-PDX10P DVCAM Camcorder	Dimensions:
Supplied Accessories	W 395 x H 260 x D 205 mm (15 5/8 x 10 1/4 x 8 1/8 inches)
Key (2)	Mass:
Shoulder strap (1)	2700 g (5 lb 15 oz)
Sticker (1)	

LCH-VX2000A Hard Carrying Case

Hard Carrying Case

Applicable Models
DSR-PD170P DVCAM Camcorder

LCR-FXA Rain Jacket

Applicable Models
HVR-Z1E



LCR-VX2000A Rain Jacket

Rain Jacket

LCS-VCB Soft Carrying Case

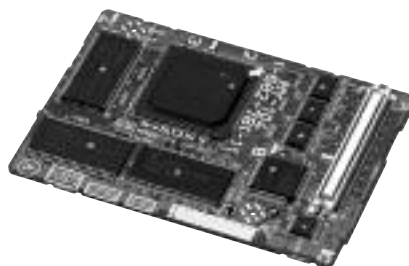
Applicable Models
HVR-Z1E



MSDW-903 Picture Cache Board

Picture cache board for MSW-970/970P MPEG IMX
Camcorder

Applicable Models
MSW-970 MPEG IMX Camcorder
MSW-970P MPEG IMX Camcorder



MSDW-904 Analog Composite Input Board

Analog composite input board for MSW-970/970P
MPEG IMX Camcorder

Applicable Models
MSW-970 MPEG IMX Camcorder
MSW-970P MPEG IMX Camcorder



NP-F570 Rechargeable Battery Pack

Applicable Models

DSR-PD170P
HVR-Z1E
HVR-M10E



NP-F770 Rechargeable Battery Pack

Applicable Models

DSR-PD170P
HVR-Z1E
HVR-M10E



2NP-F970/B Rechargeable Battery Pack (2)

The 2NP-F970 is a rechargeable battery pack. Each pack includes two NP-970 batteries suitable for use with the DSR-PD170P, HVR-Z1E and HVR-M10E products.

Features

*STAMINA super-long battery life and lithium-ion cells with no 'Memory Effect' *Both highly efficient, compact and light-weight *Built-in microprocessor which communicates with the camera and accurately indicate remaining battery time in minutes

Applicable Models

DSR-PD170P
HVR-Z1E
HVR-M10E

Supplied Accessories

NP-970 (2)



2NP-QM91D/B Rechargeable Battery Pack (2)

Features

*Indicate the remaining capacity of the battery via 5 types of 4 LEDs indication *Indicate the charging via LEDs light

Applicable Models

DSR-PDX10P
HVR-A1E

Supplied Accessories

Operation manual (*) (1)

(*) English/French

Specifications

Dimensions:

W 38.2 x H 59.5 x D 55.6 mm
(1 9/16 x 2 3/8 x 2 1/4 inches)

Mass:

225 g (7.9 oz)

Maximum output voltage:

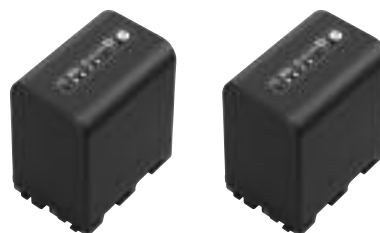
DC 8.4 V

Capacity:

29.8 Wh (4140 mAh)

Operating Temperature:

0 to +40°C (+32°F to +104°F)



NP-QM91D Rechargeable Battery Pack

Features

*Indicate the remaining capacity of the battery via 5 types of 4 LEDs indication
*Indicate the charging via LEDs light

Applicable Models

DSR-PDX10 DVCAM Camcorder
HVR-A1E

Supplied Accessories

Operation manual (1)

Specifications

Dimensions:

W 38.2 x H 59.5 x D 55.6 mm (1 9/16
x 2 3/8 x 2 1/4 inches)

Mass:

225 g (7.9 oz)

Maximum output voltage:

DC 8.4 V

Capacity:

29.8 Wh (4140 mAh)

Operating Temperature:

0 to +40°C (+32°F to +104°F)



RM-1BP LANK Remote Controller

Applicable Models

HVR-A1E HDV Camcorder



RM-B150 Remote Control Unit

Applicable Models

BVP-E30P 3-chip CCD Portable Color
Camera
BVP-E30WSP 3-chip CCD Portable Color
Camera
DSR-450WSPL DVCAM Camcorder
DVW-970P Digital Betacam Camcorder
HDC-1500 HD Portable Camera
HDC-X300 HD Multi-purpose Camera
HDC-X300K HD Multi-purpose Camera
HDC-X310 HD Multi-purpose Camera
HDC-X310K HD Multi-purpose Camera
HDW-250 HDCAM Digital Portable VTR
HDW-730S HDCAM Camcorder
HDW-750P HDCAM Camcorder
MSW-970P MPEG IMX Camcorder
PDW-510 XDCAM Camcorder
PDW-510P XDCAM Camcorder
PDW-530 XDCAM Camcorder
PDW-530P XDCAM Camcorder
SRPC-1 HD Video Processor
SRW-1 HDCAM-SR Portable VTR
WLL-RX55 Wireless Camera Receiver



RM-B750 Remote Control Unit

Features

*Designed to establish a highly mobile and fully controllable camera system in the field

Applicable Models

BVP-E30P 3-chip CCD Portable Color Camera

BVP-E30WSP 3-chip CCD Portable Color Camera

DSR-450WSPL DVCAM Camcorder

DWW-970 Digital Betacam Camcorders

DWW-970P Digital Betacam Camcorders

HDC-1000 3-chip CCD Studio/OB Camera

System

HDC-1500 3-chip CCD Studio/OB Camera

System

HDCU-1500 HD Camera Control Unit

HDC-X300 HD Multi-purpose Camera

HDC-X300K HD Multi-purpose Camera

HDC-X310 HD Multi-purpose Camera

HDC-X310K HD Multi-purpose Camera

HDW-730S HDCAM Camcorder

HDW-750P HDCAM Camcorder

MSW-970 MPEG IMX Camcorder

MSW-970P MPEG IMX Camcorder

PDW-510 XDCAM Camcorder

PDW-510P XDCAM Camcorder

PDW-530 XDCAM Camcorder

PDW-530P XDCAM Camcorder

SRPC-1 HD Video Processor

SRW-1 HDCAM-SR Portable VTR

WLL-RX55 Wireless Camera Receiver

Specifications

General

Power requirements:

DC 10.5 - 30 V (max) (supplied from camera/camcorder/CCU)

Operating temperature:

+5°C to +40 °C

Dimensions:

-20°C to +55°C

Mass:

Approx. 0.7 kg (1 lb 9 oz)

Inputs

Control interface:

8-pin (x 1), Sony Camera Command Network Protocol

Monitor in:

BNC type (x 1) VBS (No HD signal capable)



VCL-0737W Wide Conversion Lens

Features

*0.7 times wide conversion lens. *Extensive Improvement of resolution.

Applicable Models
BRC-300 3-CCD Color Video Camera
DSR-PDX10P DVCAM Camcorder

Supplied Accessories
Carrying case (1)
Lens Caps (for the front and back of the lens) (2)
Operation manual (1)

Specifications
Dimension (Approx.) :
Diameter 67 mm (2 3/4 inches)
Length (Approx.):
47mm (1 7/8 inches)
Mass:
196 g (7 lb)

VCL-HG0872 HDV Wide Conversion Lens

Applicable Models
HVR-Z1E HDV Camcorder



VCT-PG11RMB Tripod with the RM-1BP LANC Remote Controller

Applicable Models
HVR-A1E HDV Camcorder



VCT-FXA Shoulder Brace

Applicable Models
HVR-Z1E HDV Camcorder



VF-72CPK PL Filter Kit

Applicable Models
HVR-Z1E HDV Camcorder



HDW-2000/20 136
HDW-D2000/20 138
HDW-M2000P/20 140
HDW-M2100P/20 142
HDW-S280/1 144
HKJ-101 146
HKSR-5001/1 146
HKSR-5002 146
HKSR-5003 147
J-H1 148
J-H3 149
SRPC-1 150
SRW-1 152
SRW-5000/1 154
SRW-5500/1 156

HDW-2000/20 HDCAM VTR

Features

*Compact and affordable high-definition videocassette recorder
 *High picture quality using HDCAM format
 *Built-in down converter *1080/59.94i, 1080/50i, 1080/23.98PsF, 1080/24PsF, 1080/25PsF, 1080/29.97PsF record and playback
 *Long recording time of up to 124 minutes at 1080/59.94i or 149 minutes at 1080/50i on an L-size cassette
 *Versatile interfaces: HD SDI input/output, SDI output, analog component output, analog composite (NTSC/PAL) output, digital audio (AES/EBU) input/output, analog audio input/output and audio monitor output (2-ch, analog)
 *Frame-accurate editing *Pre-read editing *High speed color picture search *Dynamic Tracking playback
 *Digital jog sound *Audio crossfade function *Dynamic Motion Control (DMC) playback
 *1080/1035 line conversion *Shot mark handling *Selectable picture modes: Squeeze, letter box, and edge crop modes
 *Dolby-E/Dolby AC-3 support *Digital audio and ancillary-data recording
 *Low power consumption of 220 W
 *User-friendly control panel *Easy maintenance

Supplied Accessories

Operation manual (1)
 Installation manual (1)

Optional Accessories

HKDW-101 Remote Control Panel
 HKDW-102 SDTI (HDCAM) Interface Board
 BKMW-102 Remote Control Unit
 BKMW-103 Control Panel Extension Kit
 RMM-131 Rack Mount Kit
 RCC-G Cables 9-pin/9-pin Cable
 BCT-HD tapes BCT-HD series HDCAM tapes
 BCT-HD12CL tapes Head cleaning videocassette tapes for HDCAM VTRs

Specifications

General

Power requirements:

100 to 240 V, 50/60 Hz

Power consumption:

220 W

Operating temperature:

+5 to +40 °C (+41 to +104 °F)

Storage temperature:

-20 to +60 °C (-4 to + 140 °F)

Humidity:

25 to 80% (relative humidity)

Mass:

23 kg (50 lb 11 oz)

Dimensions:

427 (W) x 174 (H) x 544 (D) mm

(16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed:

96.7 mm/s (59.94 Hz), 80.6 mm/s (50 Hz)

Digital recording/playback time:

124 minutes (59.94 Hz, with

BCT-124HDLCL)

149 minutes (50 Hz, with BCT-124HDLCL)

40 minutes (59.94 Hz, with BCT-40HDC)

48 minutes (50 Hz, with BCT-40HDC)

Fast forward/rewind time:

Approx. 3 min with BCT-124HDL cassette

Search speed range

Shuttle mode:

Still to ± 50 times normal speed
playback

Variable mode:

-1 to +2 times normal speed playback

Jog mode:

Still to ± 1 times normal speed playback

Servo lock time:

0.5 s or less (from standby on)

Load/unload time:

6 s or less (both L and S cassette)

Inputs/outputs

HD-SDI input:

BNC (1), Serial Digital 1.485 Gb/s, SMPTE
292M

Reference video input:

BNC (2) (with a loop-through), Tri-level
sync, 0.6 Vp-p, 75 Ω , sync negative or
black burst

Digital audio input (CH 1/2, 3/4):

BNC (2), AES/EBU

Analog audio input (CH 1/2/3/4/Cue):

BNC (2) (with loop-through), AES/EBU

XLR 3-pin type, female (5)

Low off: -60 dBu, high impedance,
balanced

High off: +4 dBu, high impedance,
balanced

High on: +4 dBm, 600 Ω termination,
balanced

Time code input:

XLR 3-pin type, female, x1, 0.5 to 18 Vp-p,
10 k Ω , balanced

HD-SDI output:

BNC (3) (SMPTE 292M including one
character out), Serial Digital (1.485 Gb/s)

SDI output:

BNC (3) (SMPTE 259M including one
character out), Serial Digital (270 Mb/s)

Analog composite output:

BNC (3) (RS-170A, including one character
out, one WFM out)

Y: 1.0 Vp-p, sync negative, R-Y/B-Y: 0.7 Vp-p,
75 Ω

Analog component output:

BNC (3), for 1 set, 1.0 Vp-p, 75 Ω , sync
negative

Digital audio output (CH1/2, 3/4):

BNC (2), AES/EBU

Analog audio output (CH1/2/3/4):

XLR 3-pin type (5), male, +4 dBm (600 Ω
load), low impedance, balanced

Time code output:

XLR 3-pin type, male (1) (2.2 Vp-p, low
impedance balanced)

Monitor output (L/R):

XLR 3-pin type, male (2) (+4 dBm at 600 Ω
load, low impedance, balanced)

Headphones:

JM-60 stereo phone jack ($-\infty$ to -12 dBu at
8 Ω load, unbalanced)

Remote 1 input:

D-sub 9-pin, Sony 9-pin remote interface

Remote 1 output:

D-sub 9-pin, Sony 9-pin remote interface

RS-232C:

D-sub 9-pin

Remote 2 Parallel I/O:

D-sub 50-pin

Video control:

D-sub 9-pin, D-sub 15-pin

Control panel:

D-sub 10-pin, control panel I/O

Processor adjustment range

Video level:

± 3 dB/ ∞ to +3 dB, selectable

Chroma level:

± 3 dB/ ∞ to +3 dB, selectable

Set up/black level:

± 3 IRE

Chroma phase/hue:

$\pm 30^\circ$

System sync phase:

± 15 μ s

System SC phase:

± 200 ns

Digital video performance

Sampling frequency:

Y: 74.25 MHz, R-Y/B-Y: 37.125 MHz

Quantization:

10 bits/sample (compression 8 bits/sample)

Compression:

Coefficient recording system

Channel coding:

S-I-NRZI PR-IV

Error correction:

Reed-Solomon code

Analog component output performance

Bandwidth:

Y: 0 to 5.75 MHz +0.5 dB/-2.0 dB,
R-Y/B-Y: 0 to 2.75 MHz +0.5 dB/-2.0 dB

S/N ratio:

56 dB or more

K-factor (2T pulse):

1% or less

Analog composite output performance

Bandwidth:

Y: 0 to 5.75 MHz +0.5 dB/-2.0 dB,
R-Y/B-Y: 0 to 2.75 MHz +0.5 dB/-2.0 dB

S/N ratio:

53 dB or more

Differential gain:

2% or less

Differential phase:

2% or less

Y/C delay:

20 ns or less

K-factor (2T pulse):

1% or less

Output SCH phase:

Based upon RS-170A/CCIR R.624-3

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

20 bits/sample

Wow and flutter:

Below measurable level

Headrooms:

20 dB (or 18 dB selectable)

Emphasis (on/off selectable in REC mode):

T1 = 50 μ s, T2 = 15 μ s

Analog audio output performance

A/D quantization:

20 bits/sample

D/A quantization:

20 bits/sample

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB
(0 dB at 1 kHz)

Dynamic range:

More than 95 dB (at 1 kHz emphasis on)

Distortion:

Less than 0.05% (at 1 kHz, emphasis on,
reference level)

Crosstalk:

Less than -80 dB (at 1 kHz, between any
two channels)

Cue track

Sampling frequency:

100 Hz to 12 kHz ± 3 dB

S/N ratio:

More than 45 dB (at 3% distortion level)

Distortion:

Less than 2% (T.H.D at 1 kHz reference
level)

Wow and flutter:

Less than 0.2% rms

Erase ratio:

More than 60 dB

HDW-D2000/20 HDCAM VTR

Features

*Compact and affordable high-definition videocassette recorder
 *High picture quality using HDCAM format
 *Legacy playback includes Digital Betacam and MPEG IMX tapes
 *Built-in up and down converters *1080/59.94i, 1080/50i, 1080/23.98PsF, 1080/24PsF, 1080/25PsF, 1080/29.97PsF record and playback
 *Long recording time of up to 124 minutes at 1080/59.94i or 149 minutes at 1080/50i on an L-size cassette
 *Versatile interfaces: HD SDI input/output, SDI output, analog component output, analog composite (NTSC/PAL) output, digital audio (AES/EBU) input/output, analog audio input/output and audio monitor output (2-ch, analog)
 *Frame-accurate editing
 *Pre-read editing
 *High speed color picture search
 *Dynamic Tracking playback
 *Digital jog sound
 *Audio crossfade function
 *Dynamic Motion Control (DMC) playback
 *1080/1035 line conversion
 *Shot mark handling
 *Selectable picture modes: Squeeze, letter box, and edge crop modes
 *Dolby-E/Dolby AC-3 support
 *Digital audio and ancillary-data recording
 *Low power consumption of 220 W
 *User-friendly control panel
 *Easy maintenance



Supplied Accessories

Operation manual (1)

Installation manual (1)

Optional Accessories

HKDW-101 Remote Control Panel

HKDW-102 SDTI (HDCAM) Interface Board

BKMW-102 Remote Control Unit

BKMW-103 Control Panel Extension Kit

RMM-131 Rack Mount Kit

RCC-G Cables 9-pin/9-pin Cable

BCT-HD tapes BCT-HD series HDCAM tapes

BCT-HD12CL tapes Head cleaning videocassette tapes for HDCAM VTRs

Specifications

General

Power requirements:

100 to 240 V, 50/60 Hz

Power consumption:

220 W

Operating temperature:

+5 to +40 °C (+41 to +104 °F)

Storage temperature:

-20 to +60 °C (-4 to + 140 °F)

Humidity:

25 to 80% (relative humidity)

Mass:

23 kg (50 lb 11 oz)

Dimensions:

427 (W) x 174 (H) x 544 (D) mm

(16 7/8 x 6 7/8 x 21 1/2 inches)

Tape Speed

HDCAM:

96.7 mm/s (59.94 Hz), 80.6 mm/s (50 Hz)

Digital Betacam:

96.7 mm/s

MPEG IMX:

64.5 mm/s (59.94 Hz), 53.8 mm/s (50 Hz)

Digital recording/playback time:

124 minutes (59.94 Hz, with BCT-124HDL C)

149 minutes (50 Hz, with BCT-124HDL C)

40 minutes (59.94 Hz, with BCT-40HDL C)

48 minutes (50 Hz, with BCT-40HDL C)

Fast forward/rewind time:

Approx. 3 min with BCT-124HDL cassette

Search speed range

Shuttle mode

HDCAM:

Still to ± 50 times normal speed
playback

Digital Betacam:

Still to ± 50 times normal speed
playback

MPEG IMX:

Still to ± 78 times normal speed
playback

Variable mode

HDCAM:

-1 to ± 2 times normal speed playback

Digital Betacam:

-1 to ± 3 times normal speed playback

MPEG IMX:

-1 to ± 3 times normal speed playback

Jog mode:

Still to ± 1 times normal speed playback

Servo lock time:

0.5 s or less (from standby on)

Load/unload time:

6 s or less (both L and S cassette)

Inputs/outputs

HD-SDI input:

BNC (1), Serial Digital 1.485 Gb/s, SMPTE 292M

Reference video input:

BNC (2), (with a loop-through), Tri-level sync, 0.6 Vp-p, 75 Ω , sync negative or black burst

Digital audio input (CH 1/2, 3/4):

BNC (2), AES/EBU

Analog audio input (CH 1/2/3/4/Cue):

BNC (2) (with loop-through), AES/EBU

XLR 3-pin type, female (5)

Low off: -60 dBu, high impedance, balanced

High off: +4 dBu, high impedance, balanced

High on: +4 dBm, 600 Ω termination, balanced

Time code input:

XLR 3-pin type, female (1), 0.5 to 18 Vp-p,

10 k Ω , balanced

HD-SDI output:

BNC (3) (SMPTE 292M including one character out), Serial Digital (1.485 Gb/s)

SDI output:

BNC (3) (SMPTE 259M including one character out), Serial Digital (270 Mb/s)

Analog composite output:

BNC (3) (RS-170A, including one character out, one WFM out)

Y: 1.0 Vp-p, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

Analog component output:

BNC (3, for 1 set), 1.0 Vp-p, 75 Ω , sync negative

Digital audio output (CH1/2, 3/4):

BNC (2), AES/EBU

Analog audio output (CH1/2/3/4):

XLR 3-pin type (5), male, +4 dBm (600 Ω load), low impedance, balanced

Time code output:

XLR 3-pin type, male (1) (2.2 Vp-p, low impedance balanced)

Monitor output (L/R):

XLR 3-pin type, male (2) (+4 dBm at 600 Ω load, low impedance, balanced)

Headphones:

JM-60 stereo phone jack ($-\infty$ to -12 dBu at 8 Ω load, unbalanced)

Remote 1 input:

D-sub 9-pin, Sony 9-pin remote interface

Remote 1 output:

D-sub 9-pin, Sony 9-pin remote interface

RS-232C:

D-sub 9-pin

Remote 2 Parallel I/O:

D-sub 50-pin

Video control:

D-sub 9-pin, D-sub 15-pin

Control panel:

D-sub 10-pin, control panel I/O

Processor adjustment range

Video level:

± 3 dB/ ∞ to +3 dB, selectable

Chroma level:

± 3 dB/ ∞ to +3 dB, selectable

Set up/black level:

± 3 IRE

Chroma phase/hue:

$\pm 30^\circ$

System sync phase:

$\pm 15 \mu$ s

System SC phase:

± 200 ns

Y/C delay:

± 100 ns

Digital video performance

Sampling frequency:

Y: 74.25 MHz, R-Y/B-Y: 37.125 MHz

Quantization:

10 bits/sample (compression 8 bits/sample)

Compression:

Coefficient recording system

Channel coding:

S-I-NRZI PR-IV

Error correction:

Reed-Solomon code

Analog component output performance

Bandwidth:

Y: 0 to 5.75 MHz +0.5 dB/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5 dB/-2.0 dB

S/N ratio:

56 dB or more

K-factor (2T pulse):

1% or less

Analog composite output performance

Bandwidth:

Y: 0 to 5.75 MHz +0.5 dB/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5 dB/-2.0 dB

S/N ratio:

53 dB or more

Differential gain:

2% or less

Differential phase:

2% or less

Y/C delay:

20 ns or less

K-factor (2T pulse):

1% or less

Output SCH phase:

Based upon RS-170A/CCIR R.624-3

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

20 bits/sample

Wow and flutter:

Below measurable level

Headrooms:

20 dB (or 18 dB selectable)

Emphasis (on/off selectable in REC mode):

T1 = 50 μ s, T2 = 15 μ s

Analog audio output performance

A/D quantization:

20 bits/sample

D/A quantization:

20 bits/sample

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB
(0 dB at 1 kHz)

Dynamic range:

More than 95 dB (at 1 kHz emphasis on)

Distortion:

Less than 0.05% (at 1 kHz, emphasis on, reference level)

Crosstalk:

Less than -80 dB (at 1 kHz, between any two channels)

Cue track

Sampling frequency:

100 Hz to 12 kHz ± 3 dB

S/N ratio:

More than 45 dB (at 3% distortion level)

Distortion:

Less than 2% (T.H.D at 1 kHz reference level)

Wow and flutter:

Less than 0.2% rms

Erase ratio:

More than 60 dB

HDW-M2000P/20 HDCAM VTR

Features

*Compact and affordable high-definition videocassette recorder *High picture quality using HDCAM format *Legacy playback includes Digital Betacam, MPEG IMX, Betacam SX, Betacam SP and Betacam tapes *Built-in up and down converters *1080/59.94i, 1080/50i, 1080/23.98PsF, 1080/24PsF, 1080/25PsF, 1080/29.97PsF record and playback *Long recording time of up to 124 minutes at 1080/59.94i or 149 minutes at 1080/50i on an L-size cassette *Versatile interfaces: HD SDI input/output, SDI output, analog component output, analog composite (NTSC/PAL) output, digital audio (AES/EBU) input/output, analog audio input/output and audio monitor output (2-ch, analog) *Frame-accurate editing *Pre-read editing *High speed color picture search *Dynamic Tracking playback *Digital jog sound *Audio crossfade function *Dynamic Motion Control (DMC) playback *1080/1035 line conversion *Shot mark handling *Selectable picture modes: Squeeze, letter box, and edge crop modes *Dolby-E/Dolby AC-3 support *Digital audio and ancillary-data recording *Low power consumption of 220 W *User-friendly control panel *Easy maintenance



Supplied Accessories

Operation manual (1)
Installation manual (1)

Optional Accessories

HKDW-101 Remote Control Panel
HKDW-102 SDTI (HDCAM) Interface Board
BKMW-102 Remote Control Unit
BKMW-103 Control Panel Extension Kit
RMM-131 Rack Mount Kit
RCC-G Cables 9-pin/9-pin Cable
BCT-HD tapes BCT-HD series HDCAM tapes
BCT-HD12CL tapes Head cleaning videocassette tapes for HDCAM VTRs

Specifications

General

Power requirements:
100 to 240 V, 50/60 Hz

Power consumption:
220 W

Operating temperature:
+5 to +40 °C (+41 to +104 °F)

Storage temperature:
-20 to +60 °C (-4 to + 140 °F)

Humidity:
25 to 80% (relative humidity)

Mass:
23 kg (50 lb 11 oz)

Dimensions:
427 (W) x 174 (H) x 544 (D) mm
(16 7/8 x 6 7/8 x 21 1/2 inches)

Tape Speed

HDCAM:
96.7 mm/s (59.94 Hz), 80.6 mm/s (50 Hz)

Digital Betacam:
96.7 mm/s

MPEG IMX:
64.5 mm/s (59.94 Hz), 53.8 mm/s (50 Hz)

Betacam SX:
59.6 mm/s

Betacam SP/Betacam:
118.6 mm/s (59.94 Hz), 101.5 mm (50 Hz)

Digital recording/playback time:
124 minutes (59.94 Hz, with BCT-124HDLC)
149 minutes (50 Hz, with BCT-124HDLC)
40 minutes (59.94 Hz, with BCT-40HDC)
48 minutes (50 Hz, with BCT-40HDC)

Fast forward/rewind time:
Approx. 3 min with BCT-124HDL cassette

Search speed range

Shuttle mode

HDCAM:
Still to ± 50 times normal speed playback

Digital Betacam:
Still to ± 50 times normal speed playback

MPEG IMX:
Still to ± 78 times normal speed playback

Betacam SX:
Still to ± 78 times normal speed playback

Betacam SP/Betacam:
Still to ± 35 times normal speed playback (59.94 Hz)
Still to ± 42 times normal speed playback (50 Hz)

Variable mode

HDCAM:
-1 to +2 times normal speed playback

Digital Betacam:
-1 to +3 times normal speed playback

MPEG IMX:
-1 to +3 times normal speed playback

Betacam SX:
-1 to +2 times normal speed playback

Betacam SP/Betacam:
-1 to +3 times normal speed playback

Jog mode:
Still to ± 1 times normal speed playback

Servo lock time:
0.5 s or less (from standby on)

Load/unload time:
6 s or less (both L and S cassette)

Inputs/outputs

HD-SDI input:
BNC (1), Serial Digital 1.485 Gb/s, SMPTE 292M

Reference video input:
BNC (2), (with a loop-through), Tri-level sync, 0.6 Vp-p, 75 Ω , sync negative or black burst

Digital audio input (CH 1/2, 3/4):
BNC (2), AES/EBU

Analog audio input (CH 1/2/3/4/Cue):
BNC (2)(with loop-through), AES/EBU
XLR 3-pin type, female (5)
Low off: -60 dBu, high impedance, balanced
High off: +4 dBu, high impedance, balanced
High on: +4 dBm, 600 Ω termination, balanced

Time code input:
XLR 3-pin type, female (1), 0.5 to 18 Vp-p, 10 k Ω , balanced

HD-SDI output:
BNC (3) (SMPTE 292M including one character out), Serial Digital (1.485 Gb/s)

SDI output:
BNC (3) (SMPTE 259M including one character out), Serial Digital (270 Mb/s)

Analog composite output:
BNC (3) (RS-170A, including one character out, one WFM out)
Y: 1.0 Vp-p, sync negative,
R-Y/B-Y: 0.7 Vp-p, 75 Ω

Analog component output:
BNC (3, for 1 set) 1.0 Vp-p, 75 Ω , sync negative

Digital audio output (CH1/2, 3/4):
BNC (2), AES/EBU

Analog audio output (CH1/2/3/4):
XLR 3-pin type, (5), male, +4 dBm (600 Ω load), low impedance, balanced

Time code output:
XLR 3-pin type, male (1) (2.2 Vp-p, low impedance balanced)

Monitor output (L/R):
XLR 3-pin type, male, (2) (+4 dBm at 600 Ω load, low impedance, balanced)

Headphones:
JM-60 stereo phone jack ($-\infty$ to -12 dBu at 8 Ω load, unbalanced)

Remote 1 input:
D-sub 9-pin, Sony 9-pin remote interface

Remote 1 output:
D-sub 9-pin, Sony 9-pin remote interface

RS-232C:
D-sub 9-pin

Remote 2 Parallel I/O:
D-sub 50-pin

Video control:
D-sub 9-pin, D-sub 15-pin

Control panel:
D-sub 10-pin, control panel I/O

Processor adjustment range

Video level:
 ± 3 dB/ ∞ to +3 dB, selectable

Chroma level:
 ± 3 dB/ ∞ to +3 dB, selectable

Set up/black level:
 ± 3 IRE

Chroma phase/hue:
 $\pm 30^\circ$

System sync phase:
 ± 15 μ s

System SC phase:
 ± 200 ns

Y/C delay:
 ± 100 ns

Digital video performance

Sampling frequency:
Y: 74.25 MHz, R-Y/B-Y: 37.125 MHz

Quantization:
10 bits/sample (compression 8 bits/sample)

Compression:
Coefficient recording system

Channel coding:
S-I-NRZI PR-IV

Error correction:
Reed-Solomon code

Analog component output performance

Bandwidth:
Y: 0 to 5.75 MHz +0.5 dB/-2.0 dB,
R-Y/B-Y: 0 to 2.75 MHz +0.5 dB/-2.0 dB

S/N ratio:
56 dB or more

K-factor (2T pulse):
1% or less

Analog composite output performance

Bandwidth:
Y: 0 to 5.75 MHz +0.5 dB/-2.0 dB,
R-Y/B-Y: 0 to 2.75 MHz +0.5 dB/-2.0 dB

S/N ratio:
53 dB or more

Differential gain:
2% or less

Differential phase:
2% or less

Y/C delay:
20 ns or less

K-factor (2T pulse):
1% or less

Output SCH phase:
Based upon RS-170A/CCIR R.624-3

Digital audio performance

Sampling frequency:
48 kHz (synchronized with video)

Quantization:
20 bits/sample

Wow and flutter:
Below measurable level

Headrooms:
20 dB (or 18 dB selectable)

Emphasis (on/off selectable in REC mode):
T1 = 50 μ s, T2 = 15 μ s

Analog audio output performance

A/D quantization:
20 bits/sample

D/A quantization:
20 bits/sample

Frequency response:
20 Hz to 20 kHz, +0.5 dB/-1.0 dB
(0 dB at 1 kHz)

Dynamic range:
More than 95 dB (at 1 kHz emphasis on)

Distortion:
Less than 0.05% (at 1 kHz, emphasis on, reference level)

Crosstalk:
Less than -80 dB (at 1 kHz, between any two channels)

Cue track

Sampling frequency:
100 Hz to 12 kHz ± 3 dB

S/N ratio:
More than 45 dB (at 3% distortion level)

Distortion:
Less than 2% (T.H.D at 1 kHz reference level)

Wow and flutter:
Less than 0.2% rms

Erase ratio:
More than 60 dB

HDW-M2100P/20 HDCAM Player

Features

*Compact and affordable high-definition videocassette player *High picture quality using HDCAM format *Legacy playback includes Digital Betacam, MPEG IMX, Betacam SX, Betacam SP and Betacam tapes *Built-in up and down converters *1080/59.94i, 1080/50i, 1080/23.98PsF, 1080/24PsF, 1080/25PsF, 1080/29.97PsF playback *Long playback time of up to 124 minutes at 1080/59.94i or 149 minutes at 1080/50i on an L-size cassette *Versatile interfaces: HD SDI, SDI, analog component, analog composite (NTSC/PAL), digital audio (AES/EBU), analog audio, and audio monitor (2-ch, analog) outputs *High speed color picture search *Dynamic Tracking playback *Digital jog sound *Dynamic Motion Control (DMC) playback *1080/1035 line conversion *Shot mark handling *Selectable picture modes: Squeeze, letter box, and edge crop modes *Dolby-E/Dolby AC-3 support *Low power consumption of 220 W *User-friendly control panel *Easy maintenance



Supplied Accessories

Operation manual (1)

Installation manual (1)

Optional Accessories

HKDW-101 Remote Control Panel

HKDW-102 SDTI (HDCAM) Interface Board

BKMW-102 Remote Control Unit

BKMW-103 Control Panel Extension Kit

RMM-131 Rack Mount Kit

RCC-G Cables 9-pin/9-pin Cable

BCT-HD tapes BCT-HD series HDCAM tapes

BCT-HD12CL tapes Head cleaning

videocassette tapes for HDCAM VTRs

Specifications

General

Power requirements:

100 to 240 V, 50/60 Hz

Power consumption:

220 W

Operating temperature:

+5 to +40 °C (+41 to +104 °F)

Storage temperature:

-20 to +60 °C (-4 to + 140 °F)

Humidity:

25 to 80% (relative humidity)

Mass:

23 kg (50 lb 11 oz)

Dimensions:

427 (W) x 174 (H) x 544 (D) mm

(16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed

HDCAM:

96.7 mm/s (59.94 Hz), 80.6 mm/s (50 Hz)

Digital Betacam:

96.7 mm/s

MPEG IMX:

64.5 mm/s (59.94 Hz), 53.8 mm/s (50 Hz)

Betacam SX:

59.6 mm/s

Betacam SP/Betacam:

118.6 mm/s (59.94 Hz), 101.5 mm (50 Hz)

Digital playback time:

124 minutes (59.94 Hz, with

BCT-124HDLC)

149 minutes (50 Hz, with BCT-124HDLC)

40 minutes (59.94 Hz, with BCT-40HDC)

48 minutes (50 Hz, with BCT-40HDC)

Fast forward/rewind time:

Approx. 3 min with BCT-124HDL cassette

Search speed range

Shuttle mode

HDCAM:

Still to ± 50 times normal speed
playback

Digital Betacam:

Still to ± 50 times normal speed
playback

MPEG IMX:

Still to ± 78 times normal speed
playback

Betacam SX:

Still to ± 78 times normal speed
playback

Betacam SP/Betacam:

Still to ± 35 times normal speed
playback (59.94 Hz)
Still to ± 42 times normal speed
playback (50 Hz)

Variable mode

HDCAM:

-1 to +2 times normal speed
playback

Digital Betacam:

-1 to +3 times normal speed
playback

MPEG IMX:

-1 to +3 times normal speed
playback

Betacam SX:

-1 to +2 times normal speed
playback

Betacam SP/Betacam:

-1 to +3 times normal speed
playback

Jog mode:

Still to ± 1 times normal speed playback

Servo lock time:

0.5 s or less (from standby on)

Load/unload time:

6 s or less (both L and S cassette)

Inputs/outputs

Time code input:

XLR 3-pin type, female (1), 0.5 to 18 Vp-p,
10 k Ω , balanced

HD-SDI output:

BNC (3) (SMPTE 292M including one
character out), Serial Digital (1.485 Gb/s)

SDI output:

BNC (3) (SMPTE 259M including one
character out), Serial Digital (270 Mb/s)

Analog composite output:

BNC (3) (RS-170A, including one character
out, one WFM out)

Y: 1.0 Vp-p, sync negative, R-Y/B-Y: 0.7

Vp-p, 75 Ω

Analog component output:

BNC (3, for 1 set), 1.0 Vp-p, 75 Ω , sync
negative

Digital audio output (CH1/2, 3/4):

BNC (2), AES/EBU

Analog audio output (CH1/2/3/4):

XLR 3-pin type (5), male, +4 dBm (600 Ω
load), low impedance, balanced

Time code output:

XLR 3-pin type, male (1) (2.2 Vp-p, low
impedance balanced)

Monitor output (L/R):

XLR 3-pin type, male (2) (+4 dBm at 600 Ω
load, low impedance, balanced)

Headphones:

JM-60 stereo phone jack ($-\infty$ to -12 dBu at
8 Ω load, unbalanced)

Remote 1 input:

D-sub 9-pin, Sony 9-pin remote interface

Remote 1 output:

D-sub 9-pin, Sony 9-pin remote interface

RS-232C:

D-sub 9-pin

Remote 2 Parallel I/O:

D-sub 50-pin

Video control:

D-sub 9-pin, D-sub 15-pin

Control panel:

D-sub 10-pin, control panel I/O

Processor adjustment range

Video level:

± 3 dB/ ∞ to +3 dB, selectable

Chroma level:

± 3 dB/ ∞ to +3 dB, selectable

Set up/black level:

± 3 IRE

Chroma phase/hue:

$\pm 30^\circ$

System sync phase:

± 15 μ s

System SC phase:

± 200 ns

Y/C delay:

± 100 ns

Digital video performance

Sampling frequency:

Y: 74.25 MHz, R-Y/B-Y: 37.125 MHz

Quantization:

10 bits/sample (compression 8 bits/sample)

Compression:

Coefficient recording system

Channel coding:

S-I-NRZI PR-IV

Error correction:

Reed-Solomon code

Analog component output performance

Bandwidth:

Y: 0 to 5.75 MHz +0.5 dB/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5 dB/-2.0 dB

S/N ratio:

56 dB or more

K-factor (2T pulse):

1% or less

Analog composite output performance

Bandwidth:

Y: 0 to 5.75 MHz +0.5 dB/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5 dB/-2.0 dB

S/N ratio:

53 dB or more

Differential gain:

2% or less

Differential phase:

2% or less

Y/C delay:

20 ns or less

K-factor (2T pulse):

1% or less

Output SCH phase:

Based upon RS-170A/CCIR R.624-3

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

20 bits/sample

Wow and flutter:

Below measurable level

Headrooms:

20 dB (or 18 dB selectable)

Emphasis (on/off selectable in REC mode):

T1 = 50 μ s, T2 = 15 μ s

Analog audio output performance

A/D quantization:

20 bits/sample

D/A quantization:

20 bits/sample

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB
(0 dB at 1 kHz)

Dynamic range:

More than 95 dB (at 1 kHz emphasis on)

Distortion:

Less than 0.05% (at 1 kHz, emphasis on,
reference level)

Crosstalk:

Less than -80 dB (at 1 kHz, between any
two channels)

Cue track

Sampling frequency:

100 Hz to 12 kHz ± 3 dB

S/N ratio:

More than 45 dB (at 3% distortion level)

Distortion:

Less than 2% (T.H.D at 1 kHz reference
level)

Wow and flutter:

Less than 0.2% rms

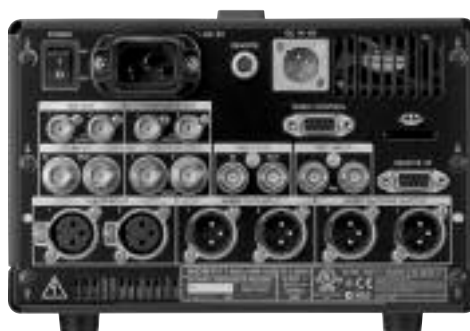
HDW-S280/1 HDCAM VTR

Features

- *Compact and affordable high-definition videocassette recorder
- *Half rack width chassis
- *Legacy playback includes Betacam SX, Betacam SP and Betacam
- *1080/59.94i, 1080/50i, 1080/23.98PsF, 1080/24PsF, 1080/25PsF and 1080/29.97PsF switchable operation
- *Record time of up to 48 minutes at 1080/50i on an S-size cassette
- *HDSDI input
- *HDSDI, SDI and composite analogue output
- *AC, DC and battery operation
- *LCD on front panel for picture monitoring
- *Low power consumption of 80W
- *Built-in up and down converters

Optional Accessories

- BKP-L55 Battery Adapter
- BP-GL95 Rechargeable Lithium-ion Battery
- BP-GL65 Rechargeable Lithium-ion Battery
- BC-M150 Ni-MH & Lithium-ion Battery Charger
- BCT-HD Series HDCAM tapes
- BCT-HD12CL Head cleaning tape for HDCAM VTRs



Specifications

Power requirements:

100 to 240 V, 50/60 Hz

Power consumption:

60 W (DC operation), 80 W (AC operation)

Operating temperature:

+5 to +40°C (+41 to +104°F)

Storage temperature:

-20 to +60°C (-4 to +140°F)

Humidity:

25 to 80%

Mass:

6 kg (13 lb 4 oz)

Dimensions (W x H x D):

210 x 132 x 425 mm
(8 3/8 x 5 1/4 x 16 3/4 inches)

HDCAM record/playback time:

40 minutes (59.94 Hz), 48 minutes (50 Hz)
with BCT-40HD cassette

Fast-forward/rewind time:

Approx. 4 minutes (fast forward), 3 minutes
(rewind)

Shuttle speed:

±10 times normal speed

Jog speed:

±1 time normal speed

Servo lock time:

1.0 second or less

Load/unload time:

7 seconds or less

Continuous Operating time:

80 minutes with BP-GL95 Battery

Inputs:

HD-SDI (BNC x1, with loop through),
Reference (BNC x1, with loop through),
analog audio (XLR 3-pin type, female x2),
time code (BNC x1)

Outputs:

HD-SDI (BNC x2), SD-SDI (BNC x2),
analog composite (BNC x2), analog audio
(XLR-3-pin, female x2), audio monitor
(XLR-3-pin, female x2), headphone
(JM-60 stereo phone jack, x1),
time code (BNC x1)

Remote:

RS-422 (D-sub 9-pin x1), video control
(D-sub 9-pin x1)

Others slots:

DC input (XLR-4-pin, male x1), "Memory
Stick" slot (x1)

Supplied accessories:

Operation manual, installation manual,
connector cap

Optional accessories:

BCT-6HD/12HD/22HD/32HD/40HD HDCAM
cassette, BCT-HD12CL cleaning tape,
RCC-5G remote cable, BKP-L551 battery
adaptor, BP-GL95/GL65 battery pack,
BC-M150 battery charger

HKJ-101 i.LINK Interface Board

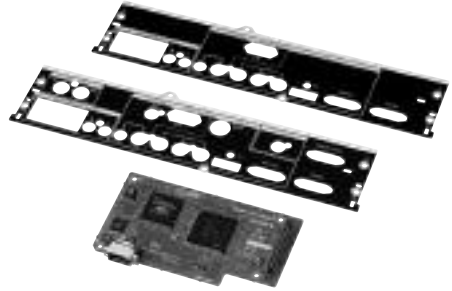
Features

*Used with the J-H1 or J-H3 *Provides i.LINK connection between J-H1/J-H3 and DV-ready NLE systems and recorders *HDCAM footage is down-converted to DV 25 Mb/s stream *Connects video, audio (Max. 4 channels) and control signals

Applicable Models

J-H1 Compact HDCAM Player

J-H3 Compact HDCAM Videocassette Player



HKSR-5001/1 Format Converter Board

Optional board for the SRW-5000/1 and SRW-5500/1
HDCAM-SR VTR

Features

*Provides a wide range of format conversions, both upconversion and downconversion, from HD-SDI (both 1080 & 720) to SDI, and from 4:4:4 to 4:2:2 *2-3 pull-down conversion capability *1080/720P cross-conversion

Applicable Models

SRW-5000/1 HDCAM-SR VTR

SRW-5500/1 HDCAM-SR VTR

HKSR-5002 Digital Betacam Processor Board

Optional board for the SRW-5000/1 and SRW-5500/1
HDCAM-SR VTR

Features

*Provides the SRW-5000/1 and SRW-5500/1 with the capability to playback Digital Betacam tapes for output in both HD and SD

Applicable Models

SRW-5000/1 HDCAM-SR VTR

SRW-5500/1 HDCAM-SR VTR

HKSR-5003 RGB Processor Boards

Optional board for the SRW-5000/1 and SRW-5500/1
HDCAM-SR VTR

Features

*Provides the SRW-5000/1 and SRW-5500/1 with the
capability to record and playback RGB (4:4:4) signals

Applicable Models

SRW-5000/1 HDCAM-SR VTR

SRW-5500/1 HDCAM-SR VTR

J-H1 Compact HDCAM Player

The J-H1 is a cost effective, compact and lightweight HDCAM viewer ideal for desk-top use.

Features

*HDCAM playback capability *Supports 1080/50i and 1080/59.9i formats *Accommodates both small and large cassettes *Versatile output capability for flexible monitoring *Equipped with HD analog Y/Pb/Pr component output *Down conversion built-in *NTSC or PAL composite video output from both BNC and RCA output connectors *Equipped with RGB computer display interface (at XGA resolution) *Optional i.LINK interface board (HKJ-101) *Shot mark handling



Supplied Accessories

Operation manual (CD-ROM) (1)
Vertical stand (1)

Optional Accessories

HKJ-101 i.LINK Interface Board

Specifications

General

Power requirements:
AC 100 to 240 V, 50/60 Hz
Power consumption:
50 W
Operating temperature:
+5 to +40°C (+41 to +104°F)
Storage temperature:
-20 to +60 °C (-4 to +140°F)
Humidity:
25 to 80% (relative humidity)

Mass:

7.5 kg (16 lb 9 oz)

Dimensions:

307(W) x 100 (H) x 397 (D) mm
(12 1/8 x 4 x 15 3/4 inches)

Tape speed

HDCAM:
96.7 mm/s (29.97 Hz)
80.7mm/s (25 Hz)

Playback time

HDCAM:
Max. 124 min (29.97 Hz, with BCT-124HDL)
Max. 149 min (25 Hz, with BCT-124HDL)

Fast forward/rewind time

Approx. 5 min with BCT-124HD

Search speed range

Shuttle mode:
±21 times normal playback speed
Job mode:
±1 times normal playback speed

Servo lock time:

1 s or less (from standby on)

Load/unload time:

7 s or less

Input output

Analog HD video:

BNC (x 3) Y: 0.7 Vp-p, Pb/Pr:
±0.7 Vp-p 75 Ω
EIAJ RC-5237 connector, EIAJ CP-4120 standard

Analog SD video:

BNC (x 1), Pin jack (x 1), 1.0 Vp-p, 75 Ω

Computer display:

D-sub 15 pin, XGA (1024 x 768 dots, RGB, 0.7 V

i.LINK (optional):

IEEE1394

Audio monitoring:

Pin jack (x 2): -10 dBu at 47 kΩ load, unbalanced
XLR (male x 2): +4 dBm, 600 Ω load, low impedance, balanced

Headphone:

JM-60 stereo phone jack, -∞ to -12 dBu at 8 Ω, unbalanced

RS-232C:

D-sub 9 pin male (x 1)

Wireless remote:

BIRCS

EXT SYNC:

BNC x 2

HD analog response

Output level:

Y: 700 mV (±5%), Pb/Pr: 700 mV (±5%),
Sync signal: 300 mV (±5%)

Bandwidth:

Y: 0 to 20 MHz + 1.0 dB/-3.0 dB,
Pb/Pr: 0 to 7 MHz +1.0 dB/-3.0 dB

S/N ratio:

56 dB or more

Output impedance:

Y, Pb, Pr: 75 Ω (±5%)

Y/C delay:

Y, Pb, Pr: ±15 ns or less

- XGA analog response -

Output level:

R: 700 mV (±5%), G: 700 mV (±5%),
B: 700 mV (±5%)

Resolution:

XGA

Refresh/rate:

60 Hz

H-frequency:

48.4 kHz

SD composite response

Output level:

Y: 59.94i: 714 mV (±5%), 50i: 700 mV (±5%)
Sync: 59.94i: 286 mV (±5%), 50i: 300 mV (±5%)
Burst: 59.94i: 286 mV (±5%), 50i: 300 mV (±5%)

Bandwidth:

0.5 to 5.75 MHz + 0.5 dB/-3.0 dB

S/N ratio:

56 dB or more

Y/C delay:

20 ns or less

K Factor (2T pulse):

1.0% or less

Analog audio response

Output level:

XLR: +4±0.5 dBm, -20 dBFS, 600 Ω terminated
PIN: +10±0.5 dBu, -20 dBFS, 47 kΩ terminated

Frequency response:

20 Hz to 20 kHz + 1.0 dB/-1.5 dB

Dynamic range:

More than 85 dB (at 1 kHz, emphasis ON)

Distortion:

Less than 0.1% (at 1 kHz/-20 dBFS, emphasis ON)

Wow and flutter:

Less than 0.18%

J-H3 Compact HDCAM Player

The J-H3 is a cost effective, compact and lightweight HDCAM viewer ideal for desk-top use. The J-H3 is equipped with a number of features to support 24P production applications.

Features

*HDCAM playback capability *Supporting 23.98/24/25/29.97PsF and 50i/59.94i formats
 *Accommodates both small and large cassettes *Versatile output capability for flexible monitoring *Equipped with HD analog Y/Pb/Pr component output *Down conversion built-in *Equipped with HD-SDI and SD-SDI outputs *NTSC or PAL composite video output from both BNC and RCA output connectors *Equipped with RGB computer display interface (at XGA resolution) *Optional i.LINK interface board (HKJ-101) *Timecode output
 *Reference input *RS-422 and RS-232C remote interface
 *LTC output *Shot mark handling *TC character superimposing capability



Supplied Accessories

Operation manual (CD-ROM) (1)
 Vertical stand (1)

Optional Accessories

HKJ-101 i.LINK Interface Board

Specifications

General

Power requirements:
 AC 100 to 240 V, 50/60 Hz
 Power consumption:
 60 W
 Operating temperature:
 +5 to +40°C (+41 to +104°F)
 Storage temperature:
 -20 to +60 °C (-4 to +140°F)
 Humidity:
 25 to 80% (relative humidity)
 Mass:
 7.5 kg (16 lb 9 oz)
 Dimensions:
 307(W) x 100 (H) x 397 (D) mm
 (12 1/8 x 4 x 15 3/4 inches)

Tape speed

HDCAM:
 96.7 mm/s (29.97 Hz)
 80.7 mm/s (25 Hz)
 77.4 mm/s (24 Hz)

Playback time

HDCAM:
 Max. 124 min (29.97 Hz, with BCT-124HDL)
 Max. 149 min (25 Hz, with BCT-124HDL)
 Max. 155 min (24 Hz, with BCT-124HDL)

Fast forward/rewind time

Approx. 5 min with BCT-124HD

Search speed range

Shuttle mode:
 ±21 times normal playback speed
 Job mode:
 ±1 times normal playback speed

Servo lock time:

1 s or less (from standby on)

Load/unload time:

7 s or less

Input output

Digital HD video:
 BNC (x 1), SMPTE-292M
 Digital SD video:
 BNC (x 1), SMPTE-259M
 Analog HD video:
 BNC (x 3) Y: 0.7 Vp-p, Pb/Pr: ±0.7 Vp-p 75 Ω
 EIAJ RC-5237 connector, EIAJ CP-4120 standard
 Analog SD video:
 BNC (x 1), Pin jack (x 1), 1.0 Vp-p, 75 Ω
 Computer display:
 D-sub 15 pin, XGA (1024 x 768 dots, RGB, 0.7 V
 I.LINK (optional):
 IEEE1394
 Time code:
 BNC (x 1), SMPTE-12M
 Audio monitoring:
 Pin jack (x 2): -10 dBu at 47 kΩ load, unbalanced
 XLR (male x 2): +4 dBm, 600 Ω load, low impedance, balanced
 Headphone:
 JM-60 stereo phone jack, -∞ to -12 dBu at 8 Ω, unbalanced
 RS-232C:
 D-sub 9 pin male (x 1)
 RS-422A:
 D-sub 9 pin female (x 1), Sony 9-pin remote interface
 Wireless remote:
 BIRCS
 EXT SYNC:
 BNC x 2

HD analog response

Output level:
 Y: 700 mV (±5%), Pb/Pr: 700 mV (±5%), Sync signal: 300 mV (±5%)
 Bandwidth:
 Y: 0 to 20 MHz + 1.0 dB/-3.0 dB, Pb/Pr: 0 to 7 MHz +1.0 dB/-3.0 dB
 S/N ratio:
 56 dB or more

Output impedance:

Y, Pb, Pr: 75 Ω (±5%)

Y/C delay:

Y, Pb, Pr: ±15 ns or less

XGA analog response

Output level:

R: 700 mV (±5%), G: 700 mV (±5%),
 B: 700 mV (±5%)

Resolution:

XGA

Refresh/rate:

60 Hz

H-frequency:

48.4 kHz

SD composite response

Output level:

Y: 59.94i: 714 mV (±5%), 50i: 700 mV (±5%)
 Sync: 59.94i: 286 mV (±5%), 50i: 300 mV (±5%)
 Burst: 59.94i: 286 mV (±5%), 50i: 300 mV (±5%)

Bandwidth:

0.5 to 5.75 MHz + 0.5 dB/-3.0 dB

S/N ratio:

56 dB or more

Y/C delay:

20 ns or less

K Factor (2T pulse):

1.0% or less

Analog audio response

Output level:

XLR: +4±0.5 dBm, -20 dBFS, 600 Ω terminated
 PIN: +10±0.5 dBu, -20 dBFS, 47 kΩ terminated

Frequency response:

20 Hz to 20 kHz + 1.0 dB/-1.5 dB

Dynamic range:

More than 85 dB (at 1 kHz, emphasis ON)

Distortion:

Less than 0.1% (at 1 kHz/-20 dBFS, emphasis ON)

Wow and flutter:

Less than 0.18%

SRPC-1 HD Video Processor

Used with the SRW-1 HD Digital Video Cassette Recorder, the SRPC-1 HD Video Processor forms the first Sony full-bandwidth HD 4:4:4 (RGB) portable VTR system. Adopting the HDCAM-SR format, the SRW-1/SRPC-1 offers virtually lossless 1080-line high-definition recordings at multiple frame rates on the very latest HDCAM-SR tape media. Offering unprecedented HD image quality, excellent operability, and powerful interfacing capabilities, the SRW-1 and SRPC-1 offer the ideal HD portable VTR system, especially for movie-making, commercial production, and high-end television production applications.

Features

- *High-quality HD field recording
- *Double speed recording
- *Multi-frame-rate 1080 HD Recording and Playback
- *12 channels of 24 bit audio

Supplied Accessories

Operational Manual (1)

Optional Accessories

BCT-HD12CL tapes Head cleaning videocassette

tapes for HDCAM VTRs

RM-B750 Remote Control Unit

BC-M150 Ni-MH & Li-ion Battery Charger

BP-GL95 Rechargeable Lithium-ion Battery Pack

BP-GL65 Rechargeable Lithium-ion Battery Pack

RM-B150 Remote Control Unit

AC-DN2B



Specifications

General

Power requirement:
DC +12 V (DC +11 to +17 V)

Operating temperature:
0 to +40 °C

Storage temperature
-20 to +60 °C

Humidity:
25 to 80% (relative humidity)

Mass:
8.5 kg (18 lb. 12 oz)

Dimensions (W x H x D):
279 x 399 x 139 mm (11 x 15 3/4 x 5 5/8 inches)

Recording format:
HDCAM-SR

Recording/Playback time:
Normal speed recording: 50 min. with BCT-40SR cassette (24P mode)
Double speed recording: 25 min. with BCT-40SR cassette (24P mode)

Fast forward/rewind time:
5 min.

Fast forward/rewind speed:
±11 times

Search speed (Shuttle mode):
±11 times

Input/Output signals

HD serial V/A input:
BNC x 2, Serial Digital (1.485 Gb/s), SMPTE-292M/SMPTE-372M/BTA-S004/ITU-R.BT709

HD reference video input:
BNC x 1, Tri Level Sync, 0.6 Vp-p, 75 Ω, sync negative

SD reference video input:
BNC x 1, Black Burst, 0.286 Vp-p, 75 Ω, sync negative

Digital audio input:
BNC x 2 (AES/EBU)

Analog audio input:
XLR-3pin x 4 (female)

Time code input:
BNC (x 1), 0.5 to 18 Vp-p, 10 kΩ

HD serial V/A output:
BNC x 2, serial digital (1.485 Gb/s), SMPTE-292M/SMPTE-372M/BTA-S004/ITU-R.BT709

HD serial V/A monitor output:
BNC x 1 (with character out), serial digital (1.485 Gb/s), SMPTE-292M/BTA-S004/ITU-R.BT709

SD serial V/A monitor output:
BNC x 1 (with character out), D1 serial digital (270 Mb/s), SMPTE-259M

Digital audio output (ch1 to ch12):
D-Sub multi connector

Analog audio monitor output
XLR-3-pin x 2 (male)

Time code output:
BNC x 1, 1.0 Vp-p (75 Ω), 2.2 Vp-p (10 kΩ)

Phones:
Stereo mini jack x 2 -17 dBu

Remote input:
D-sub 9-pin, (female), Sony 9pin remote interface

Digital video performance

Sampling frequency:
Y: 74.25 MHz, Pb/Pr: 37.125 MHz
G: 74.25 MHz, B: 74.25 MHz,
R: 74.25 MHz

Quantization:
10 bits/sample

Compression:
MPEG-4 Studio Profile

Channel coding:
S-NRZ

Error correction:
Reed-Solomon code

Digital audio performance

Sampling frequency:
48 kHz (synchronized with video)

Quantization:
24 bits/sample

Wow and flutter:
Below measurable level

Analog audio performance (Playback with the SRW-5000 VTR)

Sampling frequency:
24 bits/sample

Frequency response:
20 Hz to 20 kHz, +0.5 dB/-1.0 dB (reference level)

Dynamic range:
More than 100 dB (1 kHz)

Distortion:
Less than 0.05% (at 1 kHz, reference level)

Crosstalk:
Less than -80 dB (at 1kHz, between any two channels)

SRW-1 HDCAM-SR Portable VTR

Used with the SRPC-1 HD Video Processor, the SRW-1 HD Digital Video Cassette Recorder forms the first Sony full-bandwidth HD 4:4:4 (RGB) portable VTR system. Adopting the HDCAM-SR format, the SRW-1/SRPC-1 offers virtually lossless 1080-line high-definition recordings at multiple frame rates on the very latest HDCAM-SR tape media. Offering unprecedented HD image quality, excellent operability, and powerful interfacing capabilities, the SRW-1 and SRPC-1 offer the ideal HD portable VTR system, especially for movie-making, commercial production, and high-end television production applications.

Features

- *High-quality HD field recording
- *Double speed recording
- *Multi-frame-rate 1080 HD Recording and Playback
- *12 channels of 24 bit audio

Supplied Accessories

Operational Manual (1)

Optional Accessories

BCT-HD12CL tapes Head cleaning videocassette tapes for HDCAM VTRs

RM-B750 Remote Control Unit

BC-M150 Ni-MH & Li-ion Battery Charger

BP-GL95 Rechargeable Lithium-ion Battery Pack

BP-GL65 Rechargeable Lithium-ion Battery Pack

RM-B150 Remote Control Unit

AC-DN2B



Specifications

General

Power requirement:
DC +12 V (DC +11 to +17 V)

Operating temperature:
0 to +40 °C

Storage temperature:
-20 to +60 °C

Humidity:
25 to 80% (relative humidity)

Mass:
8.5 kg (18 lb. 12 oz)

Dimensions (W x H x D):
279 x 399 x 139 mm (11 x 15 3/4 x 5 5/8 inches)

Recording format:
HDCAM-SR

Recording/Playback time:
Normal speed recording: 50 min. with BCT-40SR cassette (24P mode)
Double speed recording: 25 min. with BCT-40SR cassette (24P mode)

Fast forward/rewind time:
5 min.

Fast forward/rewind speed:
±11 times

Search speed (Shuttle mode):
±11 times

Input/Output signals

HD serial V/A input:
BNC x 2, Serial Digital (1.485 Gb/s), SMPTE-292M/SMPTE-372M/BTA-S004/ITU-R.BT709

HD reference video input:
BNC x 1, Tri Level Sync, 0.6 Vp-p, 75 Ω, sync negative

SD reference video input:
BNC x 1, Black Burst, 0.286 Vp-p, 75 Ω, sync negative

Digital audio input:
BNC x 2 (AES/EBU)

Analog audio input:
XLR-3-pin x 4 (female)

Time code input:
BNC (x 1), 0.5 to 18 Vp-p, 10 kΩ

HD serial V/A output:
BNC x 2, serial digital (1.485 Gb/s), SMPTE-292M/SMPTE-372M/BTA-S004/ITU-R.BT709

HD serial V/A monitor output:
BNC x 1 (with character out), serial digital (1.485 Gb/s), SMPTE-292M/BTA-S004/ITU-R.BT709

SD serial V/A monitor output:
BNC x 1 (with character out), D1 serial digital (270 Mb/s), SMPTE-259M

Digital audio output (ch1 to ch12):
D-Sub multi connector

Analog audio monitor output:
XLR-3pin x 2 (male)

Time code output:
BNC x 1, 1.0 Vp-p (75 Ω), 2.2 Vp-p (10 kΩ)

Phones:
Stereo mini jack x 2 -17 dBu

Remote input:
D-sub 9-pin, (female), Sony 9pin remote interface

Digital video performance

Sampling frequency:
Y: 74.25 MHz, Pb/Pr: 37.125 MHz
G: 74.25 MHz, B: 74.25 MHz, R: 74.25 MHz

Quantization:
10 bits/sample

Compression:
MPEG-4 Studio Profile

Channel coding:
S-NRZ

Error correction:
Reed-Solomon code

Digital audio performance

Sampling frequency:
48 kHz (synchronized with video)

Quantization:
24 bits/sample

Wow and flutter:
Below measurable level

Analog audio performance (Playback with the SRW-5000 VTR)

Sampling frequency:
24 bits/sample

Frequency response:
20 Hz to 20 kHz, +0.5 dB/-1.0 dB (reference level)

Dynamic range:
More than 100 dB (1 kHz)

Distortion:
Less than 0.05% (at 1 kHz, reference level)

Crosstalk:
Less than -80 dB (at 1kHz, between any two channels)

SRW-5000/1 HDCAM-SR VTR

The SRW-5000/1 is a high-end HD digital videocassette recorder that employs the HDCAM-SR format.

Applications range from HDTV to digital cinematography. Key features include high-quality 1080i, 1080P, or 720P recording and playback, a wide array of internal format conversions, including 4:4:4 to 4:2:2, legacy playback of HDCAM and Digital BETACAM tape formats.

Features

- *1080 recording and playback at multiple frame rates: 23.98P, 24P, 25P, 29.97P, 50i, 59.94i
- *720P recording and playback
- *Switchable 4:4:4/4:2:2 recording
- *New HDCAM-SR tape format
- *High-quality MPEG-4 Studio Profile compression
- *12-channels of 24-bit audio at 48kHz
- *Internal format conversion
- *Legacy playback
- *Long recording time on a single cassette of up to 155 minutes at 1080/24P
- *User-friendly controls
- *Frame-accurate insert/assemble editing
- *High-speed colour picture search
- *Dynamic Tracking playback
- *Digital-Jog Sound
- *Dynamic Motion Control (DMC) playback
- *Pre-read editing
- *Confidence playback
- *Selectable picture modes including squeeze, letter box, and edge crop
- *Audio-output channel routing; can route audio to any HD-SDI or SDI output
- *Dual-sync operation
- *Off-speed playback capability
- *Programme play with audio pitch correction
- *Built-in Tele-File read/write capability
- *Metadata Handling
- *Newly designed DT-Head
- *New tape formula
- *Easy maintenance

Supplied Accessories

- PSW4 x 16screws, for rack mounting (4)
- CD-ROM (Operation manual & Maintenance manual part 1) (1)
- Memory Stick/PC Card adapter (1)

Optional Accessories

- HKSR-5001/1 Format Converter Board
- HKSR-5002 Digital BETACAM Processor Board
- HKSR-5003 RGB Processor Boards
- RMM-110 Rack Mount Kit
- BCT-HD12CL tapes Head cleaning videocassette tapes for HDCAM VTRs



Specifications

General

Power requirements:

100 to 240 V AC ($\pm 10\%$, 50/60 Hz)

Power consumption:

230 W

Operating temperature:

+ 5 °C to +40 °C (+41 °F to +104 °F)

Storage temperature:

-20 °C to +60 °C (-4 °F to +140 °F)

Operating humidity:

25% to 80% (relative humidity)

Mass (approx.):

30 kg (66 lb. 2 oz)

Dimensions (W x H x D excluding protrusions):

427 x 218 x 544 mm (16 3/4 x 8 5/8 x 21 1/2 inches)

Tape speed:

94.2 mm/s (24P mode)

Digital recording/Playback time:

Max. 155 min with BCT-124SR cassette (24P mode)

Fast-forward/rewind time:

Approx. 3 min with BCT-124SR cassette

Search-speed range:

± 50 times normal playback speed (24P mode)

Servo-lock time:

1.0 s or less (from standby on)

Load/unload time:

6.0 s or less

Input/Output

HD serial V/A input:

BNC (x 1 with monitoring loop-through),
Serial digital (1.485 Gb/s), SMPTE 292M/BTA
S-004/ITU-R.BT 709

HD/SD reference video input 1:

BNC (x 1, with loop-through), Tri Level sync,
0.6 Vp-p, 75 Ω , sync negative or Black
Burst, 0.286 Vp-p, 75 Ω , sync negative

HD/SD reference video input 2 (optional

HKS-5001 required):

BNC (x 1, with loop-through), Black Burst,
0.286 Vp-p, 75 Ω , sync negative

Digital-audio input (CH1/2, CH3/4, CH5/6,

CH7/8, CH9/10, CH11/12):

BNC (x 6, AES/EBU)

Time-code input:

XLR-3-pin type, (female x 1), 0.5 to 18 Vp-p,
10 k Ω , balanced

HD serial V/A output:

BNC (x 3, with character out), Serial digital
(1.485 Gb/s), SMPTE 292M/BTA
S004/ITU-R.BT 709

Format-converter output (optional HKS-5001 required):

BNC (x 2), with character out

Standard-definition V/A output:

BNC (x 3, with character out), D1 serial
digital (270 Mb/s), SMPTE 259M

Analog I/O down-converted output:

Composite: BNC (x 1 with character out)

1.0 Vp-p, 75 Ω , sync negative)

SD sync: BNC (x 1, Black Burst, 0.286 Vp-p,
75 Ω , sync negative)

Analog I/O reference output:

1125 Sync: BNC (x2), Tri Level sync, 0.6
Vp-p, 75 Ω , sync negative

Digital-audio output (CH1/2 CH3/4 CH5/6

CH7/8 CH9/10 CH11/12):

BNC (x 6), AES/EBU, unbalanced

Analog-audio output (CH1/2/3/4/Cue):

XLR-3-pin type, (male x 5), +4 dBm, (with a
600 Ω load), low impedance, balanced

Monitor output (L/R):

XLR-3-pin type, (male x 2), +4 dBm, (with a
600 Ω load), low impedance, balanced

Time-code output:

XLR-3-pin type, (male x 1), 2.2 Vp-p low
impedance, balanced

Phones:

JM-60 stereo phone jack, - ∞ to -12 dBu
(with an 8 Ω load), unbalanced

Remote 1 input:

D-sub 9-pin, (female), Sony 9-pin remote
interface

Remote 1 input/output:

D-sub 9-pin, (female), Sony 9-pin remote
interface

RS-232C:

D-sub 9-pin, (male)

Video control:

D-sub 9-pin, (female), (for optional
HKDV-503)

Parallel remote:

D-sub 50-pin, (female)

Network:

10Base-T modular jack

Digital-Video Performance

Sampling frequency:

Y: 74.25 MHz, PB/PR: 37.125 MHz

Quantization:

10 bits/sample

Compression:

MPEG-4 Studio Profile

Channel coding:

S-NRZ

Error correction:

Reed-Solomon code

Error concealment:

Adaptive three-dimensional

Analog Composite-Output Performance

Bandwidth

Y: 0 to 5.75 MHz +5.0 dB/-3.0 dB

S/N ratio:

56 dB or more

Y/C delay:

15 ns or less

K Factor (2T Pulse):

1 % or less

Output SCH phase:

Based upon RS-170A/CCIR R.624-3

Digital-Audio Performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

24 bits/sample

Wow & flutter:

Below measurable level

Headroom:

20 dB (or 18 dB selectable)

Analog Audio-Output Performance

D/A quantization:

24 bits/sample

Frequency response:

20 Hz to 20 kHz, +0.5 dB/-1.0 dB (0 dB at
1 kHz)

Dynamic range:

More than 100 dB (At 1 kHz)

Distortion:

Less than 0.05% (At 1 kHz, reference level)

Crosstalk:

Less than -90 dB (At 1 kHz, between any
two channels)

De-emphasis:

T1 = 50 μ s, T2 = 15 μ s (auto on/off)

SRW-5500/1 HCDAM-SR VTR

The SRW-5500/1 is a high-end HD digital videocassette recorder that employs the HDCAM-SR format. This VTR also allows recording and playback of the well-proven HDCAM format. Applications range from HDTV to digital cinematography. Key features include high-quality 1080i, 1080PsF, or 720P recording and playback, a wide array of internal format conversions, including 4:4:4 to 4:2:2, legacy playback of Digital BETACAM tape formats.

Features

- *1080 recording and playback at multiple frame rates: 23.98PsF, 24PsF, 25PsF, 29.97PsF, 50i, 59.94i in HDCAM and HDCAM-SR formats
- *720P recording and playback (HDCAM-SR only)
- *Switchable 4:4:4/4:2:2 recording (option)
- *High quality MPEG-4 studio profile compression
- *High quality audio recording: 12 channels, 24-bit audio at 48kHz in the HDCAM-SR format
- *Internal format conversion including up and down conversion, 4:4:4 to 4:2:2 conversion
- *Playback of Digital Betacam format tapes
- *Long recording time on a single cassette of up to 155 minutes at 1080/24PsF
- *User friendly controls
- *Frame accurate insert/assemble editing
- *High speed colour picture search
- *Dynamic tracking playback
- *Digital jog sound
- *Dynamic Motion Control (DMC) playback
- *Pre-read editing
- *Confidence playback
- *Selectable picture modes including squeeze, letter box and edge crop
- *Audio output channel routing: can route audio to any HD-SDI or SDI output
- *Dual-sync operation
- *Off-speed playback capability
- *Programme play with audio pitch correction
- *Built-in tele-file read/write capability
- *Metadata handling
- *Newly designed DT-Head
- *New HDCAM-SR tape formula for high reliability and durability
- *Easy maintenance



Supplied Accessories

- PSW4 x 16 screws for rack mounting (4)
- CD-ROM Operation manual and Maintenance Manual part 1 (1)
- Memory Stick / PC card adaptor (1)

Optional Accessories

- HKSR-5001/1 Format Converter Board
- HKSR-5002 Digital BETACAM Processor Board
- HKSR-5003 RGB Processor Boards
- RMM-110 Rack Mount Kit
- BCT-HD12CL tapes Head Cleaning
- Videocassette Tapes for HDCAM VTRs
- BCT-HD Series HDCAM Tapes
- BCT-SR Series HDCAM-SR Tapes

Specifications

General

Power requirements:

100 to 240 V AC ($\pm 10\%$, 50/60 Hz)

Power consumption:

230 W (without options)/320 W
(with all option boards installed)

Operating temperature:

+5°C to +40°C (+41°F to +104°F)

Storage temperature:

-20°C to +60°C (-4°F to +140°F)

Operating humidity:

25% to 80% (relative humidity)

Mass (approx.):

30 kg (66 lb 2 oz)

Dimensions (W x H x D excluding protrusions):

427 x 218 x 54 mm
(16 7/8 x 8 5/8 x 2 1/8 inches)

Tape speed:

HDCAM-SR: 94.2 mm/s (24 Hz)

HDCAM: 77.4 mm/s (24 Hz)

Digital Betacam: 96.7 mm/s

HDCAM-SR/HDCAM recording/

Playback time

155 min with BCT-124SR cassette (24 Hz)
with BCT-124SRL

Digital Betacam playback time

124 minutes with BCT-D124L tape

Fast-forward/rewind time

Approx. 4 min with BCT-124SR cassette

Search speed range

Shuttle mode

HDCAM-SR: Still to ± 50 times normal
playback speed (24 Hz)

HDCAM: Still to ± 58 times normal
playback speed (25 Hz)

Digital Betacam: Still to ± 50 times normal
playback speed

Variable mode

HDCAM-SR: -1 to 2 times normal
playback speed

HDCAM: -1 to 2 times normal
playback speed

Digital Betacam: -1 to 3 times normal
playback speed

Jog Mode

HDCAM-SR: Still to ± 2 times normal
playback speed

HDCAM: Still to ± 3 times normal
playback speed

Digital Betacam: Still to ± 3 times normal
playback speed

Dynamic Tracking Range

-1 to +2 times normal playback speed

Servo-lock time

1.0 sec or less (from standby on)

Load/unload time

7.0 sec or less

Input/Output

HD-SDI input A

BNC (1 + 1 for monitoring loop-through),
Serial digital (1.485 Gb/s),
SMPTE 292M/BTA S-004/ITU-R.BT 709

HD-SDI input B (optional HKSR-5003 required)

BNC (1 + 1 for monitoring loop-through),
Serial digital (1.485 Gb/s),
SMPTE 292M/BTA S-004/ITU-R.BT 709

HD/SD reference video input 1

BNC (1 + 1 for loop-through), Tri Level sync,
0.6 Vp-p, 75 Ω , sync negative or Black
Burst, 0.286 Vp-p, 75 Ω , sync negative

HD/SD reference video input 2

(optional HKSR-5001 required)

BNC (1 + 1 for loop-through),

Tri Level sync, 0.6 Vp-p,

75 Ω , sync negative or Black Burst,

0.286 Vp-p, 75 Ω , sync negative

Digital-audio input (CH1/2, CH3/4,

CH5/6, CH7/8, CH9/10, CH11/12)

BNC (x6, AES/EBU), unbalanced

Analog audio input (Cue)

XLR-3-pin, female x1

Time-code input

XLR-3-pin type, (female x1), 0.5 to 18 Vp-p,

10 k Ω , balanced

HD-SDI output

BNC (x3, with character out), Serial digital

(1.485 Gb/s), SMPTE 292M/BTA

S004/ITU-R.BT 709

Format-converter output

(optional HKSR-5001 required)

BNC (x2), with character out

SD-SDI output

BNC (2 + 1 with character out),

D1 serial digital (270 Mb/s), SMPTE 259M

Analog down-converted output

Composite: BNC (x1 with character out)

1.0 Vp-p, 75 Ω , sync negative)

SD sync: BNC (x1, Black Burst, 0.286 Vp-p,

75 Ω , sync negative)

Analog reference output

1125 Sync: BNC (x2), Tri Level sync,

0.6 Vp-p, 75 Ω , sync negative

Digital-audio output (CH1/2 CH3/4

CH5/6 CH7/8 CH9/10 CH11/12)

BNC (x6), AES/EBU, unbalanced

Analog-audio output (CH1/2/3/4/Cue*)

XLR-3-pin type, (male x5), +4 dBm,

(with a 600 Ω load),

low impedance, balanced

Monitor output (L/R)

XLR-3-pin type, (male x2), +4 dBm, (with a

600 Ω load), low impedance, balanced

Time-code output

XLR-3-pin type, (male x1),

2.2 Vp-p low impedance, balanced

Phones

JM-60 stereo phone jack, $-\infty$ to 12 dBu

(with an 8 Ω load), unbalanced

Remote 1 input

D-sub 9-pin, (female),

Sony 9-pin remote interface

Remote 1 input/output

D-sub 9-pin, (female),

Sony 9-pin remote interface

Video control

D-sub 9-pin, (female),

(for optional HKDV-900)

Parallel remote

D-sub 50-pin, (female)

Ethernet

10Base-T modular jack

Digital-Video Performance

Sampling frequency

HDCAM-SR: Y: 74.25 MHz,

Pb/Pr: 37.125 MHz, G/B/R: 74.25 MHz

HDCAM: Y: 74.25 MHz, Pb/Pr: 37.125 MHz

Quantization

10 bits/sample

Compression

HDCAM-SR: MPEG-4 Studio Profile

HDCAM: Coefficient Recording System

Channel coding

S-NRZ

Error correction

Reed-Solomon code

Error concealment

Adaptive three-dimensional

Analog Composite-Output Performance

Bandwidth

Y: 0 to 5.75 MHz +5.0 dB/-3.0 dB

S/N ratio

56 dB or more

Y/C delay

15 ns or less

K Factor (2T Pulse)

1% or less

Output SCH phase

Based upon RS-170A/CCIR R.624-3

Digital-Audio Performance

Sampling frequency

48 kHz (synchronized with video)

Quantization

HDCAM-SR: 24 bits/sample

HDCAM: 20 bits/sample

Wow & flutter

Below measurable level

Headroom

20/18/16/12 dB

Analog Audio-Output Performance

D/A quantization

24 bits/sample

Frequency response

20 Hz to 20 kHz, +0.5 dB/-1.0 dB

(0 dB at 1 kHz)

Dynamic range

More than 100 dB (At 1dB at 1 kHz)

Distortion

Less than 0.05% (At 1 kHz, reference level)

Crosstalk

Less than -80 dB

(At 1 kHz, between any two channels)

De-emphasis

T1 = 50 μ s, T2 = 15 μ s (auto on/off)

SONY

PDW-1500 160
PDW-D1 162
PDW-V1 163
PDW-R1 164

PDW-1500 XDCAM Compact Deck (Recording and Playback)

Features

*MPEG IMX/DVCAM recording and playback *Two optical heads allows transfer speeds of 2.5x for MPEG IMX (at 50 Mb/s) and 5x for DVCAM streams *Proxy AV (low-resolution audio and video) Data recording
 *High-speed transfer of Proxy AV Data at 50-times speed
 *Ability to write EDL data (Clip List) back onto disc
 *Metadata recording *Long recording/playback time; MPEG IMX at 30 Mb/s: 68 min., 40 Mb/s: 55 min., 50 Mb/s: 45 min., DVCAM: 85 min. *A variety of interfaces including SDI I/O, analog composite I/O, digital audio I/O, analog audio I/O, time code I/O, headphone output, audio monitor output, Gigabit Ethernet, i.LINK (DV IN/OUT or file access mode(*1)) *Thumbnail Search operation
 *Scene Selection operation *Search speed (in color) - JOG: -1 to +2 times normal speed, Shuttle: ± 50 times normal speed *Audio clip insertion *i.LINK (DV stream) output from MPEG IMX playback

(*1) For connection with third party products using this mode, please contact your nearest Sony office.

Supplied Accessories

Operation manual (1)
 Quick manual (1)
 PDZ-1 proxy browsing software (1)
 Proxy viewer

Optional Accessories

PFD23 Disc Professional Disc
 RCC-G Cables 9-pin/9-pin Cable
 VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable
 VMC-IL66 cables 6-pin <-> 6-pin i.LINK Cable



Specifications

General

Power requirements:

AC 100 to 240 V, 50/60 Hz

Power consumption:

75 W

Operating temperature:

+5 to +40°C (+41 to +104°F)

Storage temperature:

-20 to +60°C (-4 to +140°F)

Operating humidity:

10 to 90% (relative humidity)

Mass:

7.4 kg (16 lb 5 oz)

Dimensions (W x H x D):

210 x 130 x 415 mm

(8 3/8 x 5 1/8 x 16 3/8 inches)

Recording format

Video:

MPEG IMX (50/40/30 Mb/s), DVCAM
(25 Mb/s)

Proxy Video:

MPEG-4

Audio:

MPEG IMX: 8 ch/16 bit/48 kHz or

4 ch/24 bit/48 kHz

DVCAM: 4 ch/16 bit/48 kHz

Proxy Audio:

A-law (8/4 ch, 8 bit, 8 kHz)

Playback format

Video:

MPEG IMX (50/40/30 Mb/s), DVCAM
(25 Mb/s)

Proxy Video:

MPEG-4

Audio:

MPEG IMX: 8 ch/16 bit/48 kHz or

4 ch/24 bit/48 kHz

DVCAM: 4 ch/16 bit/48 kHz

Proxy Audio

A-law (8/4 ch, 8 bit, 8 kHz)

Recording/playback time

MPEG IMX:

50 Mb/s: 45 min., 40 Mb/s: 55 min.,

30 Mb/s: 68 min.

DVCAM:

85 min.

Search speed (in color)

Jog mode:

-1 time to 2 times normal playback
speed

Shuttle mode:

±50 times normal playback speed

Signal inputs

Analog reference input:

BNC x2 (including loop through), 1.0 Vp-p,
75 Ω, sync negative

Analog composite input:

BNC x2 (including loop through), 1.0 Vp-p,
75 Ω, sync negative

SDI input:

BNC x1, SMPTE 259M, (ITU-R BT656-3),
270 Mb/s

Analog audio input:

XLR x2 (channel selectable), -9 dBu to
28 dBu, 10 kΩ, balanced

Digital audio input:

AES/EBU, BNC x2, 4 channels

Time code input:

BNC x1

Signal outputs

Analog composite video output:

BNC x2 (including one character out),
1.0 Vp-p, 75 Ω, sync negative

SDI output:

BNC x2 (including one character out),
SMPTE 259M (ITU-R BT656-3), 270 Mb/s

Analog audio output:

XLR x2 (ch. selectable), +4 dBu, 600 Ω
load, low impedance, balanced

Audio monitor output:

RCA x1 (L, R, Mix), -6 dBu, 47 kΩ,
unbalanced

Digital audio output:

BNC x2, 4 channels

Headphone output:

Jack x1, -16 dBu, 8 Ω, unbalanced

Time code output:

BNC x1

Other inputs and outputs

i.LINK:

IEEE 1394, DV IN/OUT or file access
mode, 6-pin x 1

Ethernet:

1000Base-T (RJ-45 x1)

RS-422A:

D-sub 9-pin x1 (VTR protocol)

Video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

10 bits/sample

Error correction:

Reed Solomon Code

Analog composite input to analog composite
output

Bandwidth:

30 Hz to 4.5 MHz +0.5/-1.5 dB (NTSC)

25 Hz to 5.5 MHz +0.5/-1.5 dB (PAL)

S/N ratio:

53 dB or more

Differential gain:

2% or less

Differential phase:

2° or less

Y/C delay:

20 ns or less

K-factor (2T pulse):

2% or less

Processor adjustment range

Video level:

±3 dB

Chroma

±3 dB

Set up/black level:

±15 IRE/±105 mV

Chroma phase/hue:

±30°

System sync phase:

±15 ms

System SC phase:

±200 ns

Audio performance

Frequency response:

20 Hz to 20 kHz +0.5/-1.0 dB (0 dB at 1 kHz)

Dynamic range:

More than 90 dB

Distortion:

Less than 0.05% (at 1 kHz)

Head room:

20 dB (18 dB selectable)

"Eco Info"

Halogenated flame retardants are not used
in cabinets and in printed wiring boards.

PDW-D1 XDCAM Drive

Features

Low-cost, lightweight XDCAM drive *Interfaces are i.LINK
(File Access Mode) and i.LINK AVC *DC 12V or AC

Supplied Accessories

Setup software for Windows PC
PDZ-1 Software
XDCAM Proxy Viewer
Manual

Optional Accessories

PFD23 Professional Disc
VMC-IL4615/4635 i.LINK Cable
(4-pin to 6-pin, 1.5m/3.5m)
VMC-IL6615/6635 i.LINK Cable
(6-pin to 6-pin, 1.5m/3.5m)
BKP-L551 Battery Adaptor
BP-GL65 Lithium-ion Battery Pack
BP-GL95 Lithium-ion Battery Pack
BP-L60S Lithium-ion Battery

Specifications

Power requirements
AC 100 to 240 V, 50/60Hz, DC (with
battery)

Power consumption
25W

Operating temperature
0 to 40 °C

Storage temperature
-20 to +60 °C

Humidity
20 to 90 % (relative humidity)

Mass
3.0kg (6lb 9oz)

Dimensions (W x H x D)
78 x 182 x 257 mm
(3 1/8 x 7 1/4 x 10 1/8 inches)

AVC Recording format:

Video
DVCAM (25Mb/s)

Proxy Video
MPEG-4

Audio
4ch/16bit/48kHz

Proxy Audio
A-law (4ch, 8bit, 8kHz)

File Access Mode Recording format:

Video
MPEG IMX (50/40/30Mb/s),
DVCAM (25Mb/s)

Proxy Video
MPEG-4

Audio
MPEG IMX:
8ch/16bit/48kHz or 4ch/24bit/48kHz
DVCAM: 4ch/16bit/48kHz

Proxy Audio
A-law(4/8ch, 8bit, 8kHz)

Playback format

Video
MPEG IMX
(50/40/30Mb/s), DVCAM(25Mb/s)

Proxy Video
MPEG-4

Audio
MPEG IMX:
8ch/16bit/48kHz or 4ch/24bit/48kHz

DVCAM:
4ch/16bit/48kHz

Proxy Audio
A-law(4/8ch, 8bit, 8kHz)

Recording/playback time

MPEG IMX:
50Mb/s: 45 min
40Mb/s: 55 min
30Mb/s: 68 min

DVCAM:
85 min

Note: through i.LINK AVC, IMX format is
down-converted to DV format.



PDW-V1 XDCAM Mobile Deck (Playback and File Recording)

Features

- *Playback of MPEG IMX/DVCAM recordings
- *High-resolution AV files (MPEG IMX/DVCAM) and Proxy AV (low-resolution audio and video) files can be recorded via its Ethernet interface or i.LINK (file access mode(*1)) interface (*2) *High-speed transfer of proxy AV data at 30-times speed *Long playback time; MPEG IMX at 30 Mb/s: 68 min., 40 Mb/s: 55 min., 50 Mb/s: 45 min., DVCAM: 85 min. *Metadata recording *Ability to write EDL data (Clip List) back onto disc *Compact, lightweight design *Allows transfer speeds of 1.25x for MPEG IMX (at 50 Mb/s) and 2.5x for DVCAM streams (equipped with one optical head) *3.5 inch(*3) type color LCD screen for monitoring pictures and black-and-white LCD screen for displaying information such as time codes, audio meters and disc capacity *Thumbnail Search operation *Scene Selection operation *Analog RGB output capability for direct connection to computer displays
- *AC/battery-powered operation *Built-in audio speaker
- *Network connectivity (100Base-TX) *Search speed (in color) - JOG: -1 to 1 times normal speed, Shuttle: ± 20 times normal speed *i.LINK (DV stream) output from MPEG IMX playback

(*1) For connection with third party products using this mode, please contact your nearest Sony office. (*2) The PDW-V1 does not support synchronous video/audio input. (*3) Viewable area measured diagonally



Supplied Accessories

Operation manual (1)
PDZ-1 proxy browsing software (1)
Shoulder belt (1)
Proxy viewer

Optional Accessories

PFD23 Disc Professional Disc
BP-IL75 Rechargeable Lithium-ion Battery Pack
BP-M100 Rechargeable Nickel Metal Hydride Battery Pack
BP-GL95 Rechargeable Lithium-ion Battery Pack
BC-M50 Ni-MH & Li-ion Battery Charger
BC-M150 Ni-MH & Li-ion Battery Charger
VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable
VMC-IL66 cables 6-pin <-> 6-pin i.LINK Cable

Specifications

General

Power requirements:
AC 100 to 240 V, 50/60 Hz, DC (with battery)

Power consumption:
43 W

Operating temperature:
+0 to +40°C (+32 to +104°F)

Storage temperature:
-20 to +60°C (-4 to +140°F)

Humidity:
10 to 90% (relative humidity)

Storage humidity:
Less than 90%

Mass:
3.5 kg (7.7 lb)

Dimensions (W x H x D):

210 x 90 x 320 mm
(8 3/8 x 3 5/8 x 12 5/8 inches)

Recording format

Proxy Video:
MPEG-4
Proxy Audio
A-law (8/4 ch, 8 bit, 8 kHz)

Playback format

Video:
MPEG IMX (50/40/30 Mb/s), DVCAM (25 Mb/s)

Proxy Video:
MPEG-4

Audio:
MPEG IMX: 8 ch/16 bit/48 kHz or
4 ch/24 bit/48 kHz
DVCAM: 4 ch/16 bit/48 kHz

Proxy Audio:
A-law (8/4ch, 8 bit, 8 kHz)

Playback time

MPEG IMX:
50 Mb/s: 45 min., 40 Mb/s: 55 min.,
30 Mb/s: 68 min.

DVCAM:
85 min.

Search speed (in color)

Jog mode:
 ± 1 times normal playback speed
Shuttle mode:
 ± 20 times normal playback speed

Signal outputs

Analog composite video:
BNC x1 (character out), 1.0 Vp-p, 75 Ω ,
sync negative

SDI output:
BNC x1 (character out), SMPTE 259M
(ITU-R BT656-3), 270 Mb/s

Analog RGB output:

D-sub 15-pin x1

Audio monitor output:

RCA x2 (L/R), -6 dBu, 47 k Ω , unbalanced

Headphone output:

Jack x1, -16 dBu, 8 Ω , unbalanced

Other inputs/outputs

i.LINK:

IEEE 1394, DV IN/OUT or file access
mode, 6-pin x 1

Ethernet:

100Base-TX (RJ-45 x1)

Video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

10 bits/sample

Error correction:

Reed Solomon Code

"Eco Info"

Halogenated flame retardants are not used
in printed wiring boards.

PDW-R1 XDCAM Field Recorder (Playback and Recording)

Features

*Recording of MPEG IMX/DVCAM recordings *MPEG IMX/DVCAM recording and playback *High-resolution AV files (MPEG IMX/DVCAM) and Proxy AV (low-resolution audio and video) files can be transferred via its Ethernet interface or i.LINK (file access mode^(*)) interfaces
 *High-speed transfer of proxy AV data at 30-times speed (via its i.LINK (file access mode) interface).
 *Long recording time; MPEG IMX at 30 Mb/s: 68 min., 40 Mb/s: 55 min., 50 Mb/s: 45 min., DVCAM: 85 min.
 *Metadata recording *Ability to write EDL data (Clip List) back onto disc *Compact, lightweight design *Allows transfer speeds of 1.25x for MPEG IMX (at 50 Mb/s) and 2.5x for DVCAM streams (equipped with one optical head via its i.LINK (file access mode) interface)
 *3.5 inch⁽²⁾ type color LCD screen for monitoring pictures and black-and-white LCD screen for displaying information such as time codes, audio meters and disc capacity
 *Thumbnail Search operation *Scene Selection operation
 *AC/DC/battery-powered operation *Built-in audio speaker
 *Network connectivity (100Base-TX) *Search speed (in color) - JOG: -1 to 1 times normal speed, Shuttle: +20 times normal speed *i.LINK (DV stream) output from MPEG IMX playback

(*1) For connection with third party products using this mode, please contact your nearest Sony office. (*2) Viewable area measured diagonally



Supplied Accessories

Operation manual (1)
 PDZ-1 proxy browsing software (1)
 Proxy viewer

Optional Accessories

PFD23 Disc Professional Disc
 BP-L60S Rechargeable Lithium-ion Battery Pack
 BP-GL95 Rechargeable Lithium-ion Battery Pack
 BC-M150 Ni-MH & Li-ion Battery Charger
 VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable
 VMC-IL66 cables 6-pin <-> 6-pin i.LINK Cable

Specifications

General

Power requirements:
 AC 100 to 240 V, 50/60 Hz,
 DC (with battery), EXT-DC
 Operating temperature:
 +0 to +40°C (+32 to +104°F)
 Storage temperature:
 -20 to +60°C (-4 to +140°F)
 Humidity:
 10 to 90% (relative humidity)
 Storage humidity:
 Less than 90%

Mass:

4.0kg
 Dimensions (W x H x D):
 230 x 100 x 352 mm

Recording format

Proxy Video:
 MPEG-4
 Proxy Audio
 A-law (8/4 ch, 8 bit, 8 kHz)

Recording and Playback format

Video:
 MPEG IMX (50/40/30 Mb/s),
 DVCAM (25 Mb/s)

Proxy Video:

MPEG-4

Audio:

MPEG IMX: 8 ch/16 bit/48 kHz or
 4 ch/24 bit/48 kHz
 DVCAM: 4 ch/16 bit/48 kHz

Proxy Audio:

A-law (8/4ch, 8 bit, 8 kHz)

Playback time

MPEG IMX:
 50 Mb/s: 45 min., 40 Mb/s: 55 min.,
 30 Mb/s: 68 min.

DVCAM:

85 min.

Search speed (in color)

Jog mode:
 +1 times normal playback speed

Shuttle mode:

+20 times normal playback speed

Signal inputs

Ref. Video:
 BNC x1 , 1.0 Vp-p, 75 Ω, sync negative

Analog composite video:

BNC x1 , 1.0 Vp-p, 75 Ω, sync negative

SDI:

BNC 1 , SMPTE 259M (ITU-R BT656-3),
 270 Mb/s

Analog Audio:

XLR x 2(channel selectable),
 +4/0/-3/-6dBu(selectable from menu)
 10 kΩ, balanced

Digital Audio(AES/EBU):

BNC x2, 4 channels

Time code:

BNC x1

Signal outputs

Analog composite video:
 BNC x1 (character out),
 1.0 Vp-p, 75 Ω, sync negative

SDI output:

BNC x1, SMPTE 259M (ITU-R BT656-3),
 270 Mb/s

BNC x1 (character out), SMPTE 259M
 (ITU-R BT656-3), 270 Mb/s

Audio output

XLR x 2 (channel selectable),
 +4/0/-3/-6 dBu (selectable from menu)
 600 Ω load, low impedance, balanced

Digital Audio(AES/EBU) output 1/2, 3/4

BNC x2, 4channels

Audio monitor output:

XLR output can be switched to monitor by
 SetupMenu

Headphone output:

Jack x1, ∞ ~ -13 dBu, 8 Ω, unbalanced

Other inputs/outputs

i.LINK:

IEEE 1394, DV IN/OUT or file access mode,
 6-pin x 1

Ethernet:

100Base-TX (RJ-45 x1)

RS-422A:

D-sub 9-pin x1(VTR protocol)

DC out

4-pin, Supplies power of 12V DC to the
 BVR-3 or RM-280 Remote control unit.

Video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

10 bits/sample

Error correction:

Reed Solomon Code

"Eco Info"

Halogenated flame retardants are not used in
 printed wiring boards.

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PDJ-C1080 Professional Disc Cart Machine

Equally suitable for both transmission and storage applications. The PDJ-C1080 Professional Disc Cart Machine combines the robustness of cart based AV payout with the advantages of the networkable non-linear XDCAM optical disc-based storage media.

Features

The PDJ-C1080 Professional Disc Cart is an automatic changer system for optical disc cartridges that features multiple video decks (PDW-1500 Professional Disc Recorders) and disc cartridge shelves called "bin units". The PDJ-C1080 has the capacity for up to 4 PDW-1500 decks, with bins to hold up to 80 discs included in the standard product. In other words, capacity is provided to load up to 113 hours of program material making this an ideal solution for automated payout & recording applications.

By using standard VCC protocol for control, the PDJ-C1080 has been designed as a "drop-in" replacement for existing flexicart systems, requiring minimal re-programming to interface with popular automation systems and reducing disruption to existing workflows.

Supplied Accessories

- Operation Manual (1)
- Installation Manual (1)
- Anchor plate (1 set)
- Eye bolt (4)

Optional Accessories

- PDW-1500 Professional Disc Recorder
- PFD23 Optical Disc Cartridge
- RCC-5G Remote Cable (5 m)

Specifications

General

- Power requirements:
 - 100 to 240 V AC, 50/60Hz
- Current drain
 - 9 to 3.75 A (not including video decks)
- Peak inrush current
 - Power ON, current probe method:
 - 60 A (100V), 95 A (240V)
 - Hot switching inrush current, measured in accordance with European standard EN55103-1: 45 A (230V)
- Dimensions:
 - 450 x 1830 x 900 mm (w/h/d)
 - (17 3/4 x 72 3/4 x 35 1/2 inches)
 - (not including projecting parts)
- Mass:
 - approx. 170 kg (374 lb 1 oz)
 - (not including video decks and optional disc cartridges)

Performance

- Number of storable optical disc cartridges:
 - up to 80
- Number of mountable video decks:
 - up to 4
- Remote control interface:
 - RS-232C, RS-422A (VCC cart control protocol)
- Parallel I/O interface:
 - D-sub 50-pin

Environmental conditions

- Operating temperature:
 - 5°C to 35°C (41°F to 95°F)
- Storage temperature:
 - 20°C to +55°C (-4°F to +131°F)
- Operating humidity:
 - 20% to 90% (at 25°C/77°F, no condensation)
- Storage humidity:
 - less than 75% (at 55°C/131°F or less)

Barcodes

- Optical disc cartridges to be used in this Disc Cart are controlled using barcodes of the following specifications:
 - Code: Code 39
 - Print format: 16 characters x 3 lines
 - Narrow bar width: 0.19 mm
 - Character: format ASCII codes



Media Preparation System Barcode Preparation Software

Media Preparation System (MPS) from Sony is user-friendly and feature-rich software that facilitates and enhances the storage of physical media (Video tapes, Professional Disc) as well as metadata about those files on a database.

Preparing and configuring such information can be consuming, both in terms of time and resources. And this is where MPS from Sony truly adds value – in making it easier and quicker than ever before to prepare your media for transmission systems such as LMS and Flexicart. In addition, MPS has recently been enhanced to provide compatibility with Sony's XDCAM Professional Disc and XDCAM Cart, so you can file, archive, retrieve and exploit all of your media files quickly, easily and efficiently.

MPS allows valuable information such as ID data, Title, Time code (SOM and DUR) to be recorded and recognised by the transmission device. MPS prepares a barcode label containing the information and also codes the information on to the media itself.

Features

MPS has been further enhanced to support barcoding of Sony's XDCAM Professional Disc media.

Three lines of Code 39 barcode allows for entry of a total of 48 ASCII characters including ID, Title, SOM, Duration, etc. Further metadata can then be stored directly on the XDCAM disc itself. XDCAM barcode labels produced by MPS provide full compatibility with Sony's PDJ-C1080 Professional Disc Cart Machine.

Specifications

Hardware components:

- PC workstation with:
 - CPU Pentium 200 Mhz or over Ethernet network recommended 64Mb RAM or more
 - 1 or 2 available RS-232 COM ports
- Compatible with analogue VTRs (BVW series) or digital VTRs (DVW, DNW series). A player can be used with mono-segment tapes or to read UB. A recorder is required to write UB on a multi-segment tape.
- Compatible with XDCAM PDW-Series decks.
- Driver for Sony Barcode reader : BVBR-10
- Driver for Sony Barcode printer : BVBP-14
- Compatible with Avery AP Series
 - To print XDCAM compatible labels.
- Compatible with HP LaserJet 6 (or equivalent with 2 trays):
 - To print barcode label and jacket for small or large Betacam tapes
 - To print media technical report
 - To print database information

Software components :

- Windows 2000 or XP operating system
- Database SQL server (Borland Interbase 4.2)
- Btrieve Database import (CPS software compatibility)
- Multi-user management (with password software access)
- Multi-media management (e.g. server, main tape, backup tape) which can manage the same ID on several media (multiple IDs can not be used for the same media).
- Remote VTR (Eject, Play, FFW, REW, JOG, Shuttle) with Time Code, VTR status (Rec. Inhibit, Tape out, Cue), VTR type provided in real time
- VTR Mark IN and Mark Out import
- User Bits Read, User Bits Write, User Bits Check
- 40 Comment records with Time Code are managed with fields such as Credits, Video Drops, Audio Click and Patterns.
- All combo box items can be customised (stored in a database)
- All new combo box choices can be customised (stored in INI file)
- 6 Custom Fields are available:
 - Date Field
 - Edit Field
 - 4 Combo boxes
- Copy function allows fields to be copied on each segment and the date to be customised in INI file
- Hardware configuration stored in INI file
- Warning information for invalid duration (customised in INI file)
- Security function prevents forbidden characters, such as é, è and à, from being entered
- MDI windows (several media records can be opened at the same time)
- All functions can also be performed using the keyboard (except JOG / Shuttle VTR operations)
- Compatible with the TMS protocol on BZA-800 Series and BZC-2100 software



PDJ-CS10 Cart Interface Software

Configured with PDJ-CS10 Cart Interface Software, the PDJ-C1080 interfaces with MXF-compliant editing and playout systems from other leading vendors. Professional Discs resident in the PDJ-C1080 appear to external systems via standard FTP or CIFS protocols as a shared network drive. The contents of each Professional Disc appear as a subfolder of the shared drive. The PDJ-CS10 software application provides powerful disc capacity management, automatically storing clips to an available Professional Disc of the appropriate video format and with available free disc space.

Quick restores from archived content
Restoring content from the near-line archive is quicker than with tape. The ultra-reliable robotic loader can select the required disc in less than 30 seconds, and content can be restored from disc to the main news production system twice as fast as real time. The result? A 10-minute piece can be restored from archive and available to on-line users for editing in just over 5 minutes.

Simple, web-based management interface
All file management and system functions – including Disc ID, Title, Bin Number, File and Last Access date – can be reviewed via an easy-to-use browser based interface. This allows the cart operator to quickly search for and identify Professional Discs, with tracking of both near-line discs resident in the PDJ-C1080 robot as well as discs moved off-line to shelf storage.



System Requirements

The following environment is recommended for PDJ-CS10.

CPU: Intel Pentium 4, or Xeon, 2.8GHz over.
Memory: 2GB
HDD: 1st 80GB, 2nd 250GB
Network: 1000Base-T
OS: Preinstall Red Hat(R) Enterprise Linux ES 3 (32bit)
DB: Oracle 10g Standard Edition One
for Linux (x86) Release 1 (10.1.0) Distribution Package

Networked Production

Sonaps	170
SonapsLite HD	171

Sonaps Integrated Networked Production System

Sonaps is a fully integrated and scalable workflow-specific system that optimises the processes in capturing, producing and publishing content for broadcast news production. It has superior capabilities when compared to many systems available today and builds on the vast Sony experience of operating in the most demanding workplace of news and sport. Sonaps allows innovative new workflow processes and operational procedures to be developed to further enhance the business performance of its users, reducing time to air, increasing efficiency and allowing greater creative opportunity for all users.

Features

- *Fully scaleable for inputs, outputs, clients and capacity
- *Faster than real-time ingest and access for XDCAM-based content
- *Superior metadata handling, from planning to archive
- *File-based MXF content exchange
- *Classification of material by categories
- *Audio/video editing with voice over, slow motion and advanced NLE capability
- *Browsing of audio/video content from any connected terminal or workstation
- *Field editing, EDL exchange and fast time to air
- *Full integration with newsroom computer via MOS, including search, retrieve and upload and control of playlist
- *On air of playlists manually or under automation control
- *Integration with third-party archiving and asset management
- *Integration with third-party automation
- *Fully supported by remote diagnostics, dial-in management, monitoring and upgrade
- *Inherent upgrade roadmap to HD operation



Options

MXF Gateway

Allows file-based contribution and distribution.

MOS Gateway

Allows seamless integration to newsroom systems.

Archive Interface

Allows seamless integration with third-party asset management and archive systems, including robotics with disc or tape media.

SonapsLite HD HD Networked Production System

SonapsLite HD is a workflow-specific system that optimises the “direct to edit-suite and upload for playout” workflow for broadcast news production. SonapsLite HD allows innovative new workflow processes and operational procedures to be developed in the move to HD operation.

Features

- *Faster than real-time ingest and access for XDCAM-based content
- *Superior metadata handling from planning to archive
- *Audio/video editing with voice over, slow motion and advanced NLE capability
- *Field editing, EDL exchange and fast time to air
- *Full integration with newsroom computer via MOS for playlist upload and control
- *On air of playlists manually or under automation control
- *Integration with third-party archiving and asset management
- *Integration with third-party automation
- *Fully supported by remote diagnostics, dial-in management, monitoring and upgrade
- *Inherent upgrade roadmap to full Sonaps networked production system



Options

MXF Gateway

Allows file-based contribution and distribution.

MOS Gateway

Allows seamless integration to newsroom systems.

Archive Interface

Allows seamless integration with third-party asset management and archive systems, including robotics with disc or tape media.

SONY

Digital Betacam VTRs

DVW-M2000	174
DVW-M2000P	176
DVW-2000	178
DVW-2000P	180

DVW-M2000 Digital Betacam Recorder

Features

*Superb picture quality and high sound quality of Digital Betacam format
*Powerful legacy playback capability of MPEG IMX, Betacam SX, Betacam SP and Betacam as well as Digital Betacam format
*HD upconversion output capability (1080/59.94i, 720/59.94p)(option: *1)
*Compact 4U height design and light weight
*High-quality four-channel 20-bit digital audio
*Long recording time of 124 minutes on an L-cassette and 40 minutes on an S-cassette
*Versatile interfaces including SDI I/O, analog component I/O, digital and analog audio I/O, time code I/O, analog composite I/O and 50-pin parallel remote interface as standard
*Frame-accurate insert/assemble editing
*Pre-read editing capability
*Digital audio jog sound
*High-speed picture search
*Variable speed playback
*Dynamic Motion Control (DMC) functionality
*Easy setup using "Memory Stick" media
*Shot mark handling
*UMID handling
*Built-in Tele-File reader/writer to read and write information onto and from a cassette with an optional Tele-File label attached
*Remote maintenance and monitoring over an Ethernet network using the optional BZNV-1000 ISR Proxy software
*Optional remote control panel BKDW-101
*Built-in signal generator
*Can be installed in LMS and Flexicart systems



Supplied Accessories

PSW 4x16 rack mount screws (4)
Operation manual (1)
Installation manual (1)

Optional Accessories

BKDW-101 Remote Control Panel
BKMW-102 Remote Control Unit
BKMW-103 Control Panel Extension Kit
BKMW-104 HD Up-converter Board (*1)
RCC-G Cables 9-pin/9-pin Cable
RMM-131 Rack Mount Kit
MSA-A "Memory Stick" IC Memory Media
BCT-D tapes BCT-D Series Digital Betacam Tapes

Digital Betacam VTRs

Specifications

General

Power requirements:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

220 W

Operating temperature:

+5°C to +40°C (+41°F to +104°F)

Storage temperature:

-20°C to +60°C (-4°F to +140°F)

Humidity:

20% to 90% (relative humidity)

Mass:

23.5 kg (52 lb 11 oz)

Dimensions (W x H x D):

427 x 174 x 544 mm (16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed

Digital BETACAM:

96.7 mm/s

MPEG IMX:

64.467 mm/s

BETACAM SX:

59.515 mm/s

BETACAM/BETACAM SP:

118.6 mm/s

Recording/playback time (Digital Betacam):

Max. 124 min with BCT-D124L cassette

Fast forward/rewind time:

Approx. 3 min with BCT-D124L cassette

Search speed range

Digital BETACAM:

±50 times normal playback speed

MPEG IMX:

±78 times normal playback speed

BETACAM SX:

±78 times normal playback speed

BETACAM/BETACAM SP:

±35 times normal playback speed

Servo lock time:

0.5 s or less (from standby on)

Load/unload time:

6 s or less

Input/output signals

Analog composite input:

BNC (x2, including one loop through output), 1.0 Vp-p, 75 Ω, sync negative

Analog composite output:

BNC (x3, including one character out), 1.0 Vp-p, 75 Ω, sync negative

Analog component input:

BNC (x3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

Analog component output:

BNC (x3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

SDI input:

BNC (x2, including one active through out), SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDI output:

BNC (x3, including one character out), SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

HD-SDI output (option):

BNC (x3)

Analog audio input:

XLR (x4) (4CH: channel selectable)

Analog audio output:

XLR (x4) (4CH: channel selectable)

Cue audio input:

XLR (x1, only Digital Betacam recording)

Cue audio output:

XLR (x1, only Digital Betacam playback)

Digital audio input:

BNC (x2), 4 channels, AES/EBU, default 48 kHz (32 to 48 kHz with sample rate converter), complies with AES-3id-1995

Digital audio output:

BNC (x4), 8 channels, AES/EBU, 48 kHz fixed, complies with AES-3id-1995

Remote control

Remote (RS-422A):

D-sub 9-pin (x2), Sony 9-pin remote interface

RS-232C (ISR*):

D-sub 9-pin (x1), RS-232C interface

Parallel remote:

D-sub 50-pin (x1)

Video control:

D-sub 15-pin (x1, for connection with BVR-50 Video Controller)

D-sub 9-pin (x1, for connection with HKDV-503/900 Video Controller)

Control panel:

Circular connector 10-pin

Time code input:

XLR (x1)

Time code output:

XLR (x1)

Memory card insertion slot:

Memory Stick slot (x1)

Monitor output L/R:

XLR (x2) (channel selectable)

Phones:

JM-60 Stereo phone jack

Processor adjustment range

Video level:

±3 dB/ -∞ to 3 dB selectable

Chroma level:

±3 dB/ -∞ to 3 dB selectable

Set up/black level:

±30 IRE/±210 mV

Chroma phase/hue:

±30°

System sync phase:

±15 μs

System SC phase:

±200 ns

Y/C delay:

±100 ns (BETACAM/BETACAM SP playback only)

Composite input level:

±3 dB

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

10 bits/sample

Error correction:

Reed-Solomon code

Digital input to analog component output:

D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 62 dB or more, K-factor (2T pulse): 1% or less

Analog component input to analog

component output:

A/D and D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more, K-factor (2T pulse): 1% or less, LF non-linearity: 3% or less

Analog composite input to analog composite output:

A/D and D/A quantization: 10 bits/sample,

Bandwidth: 0 to 5.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more, Differential gain:

2% or less, Differential phase: 2° or less

Y/C delay: 20 ns or less, K-factor (2T

pulse): 1% or less

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

20 bits/sample

Analog input to analog output:

Frequency response (0 dB at 1 kHz): 20 Hz to 20 kHz +0.5/-1.0 dB

Dynamic range (at 1 kHz, emphasis ON):

More than 95 dB

Distortion (at 1 kHz, emphasis ON,

reference level): Less than 0.05%

Cross talk (at 1 kHz, between any two

channels): Less than -80 dB, Wow & flutter:

Below measurable level

Head room:

20 dB (18 dB selectable)

Emphasis (ON/OFF selectable in REC mode):

T1=50 μs, T2=15 μs

*ISR: Interactive Status Reporting

DVW-M2000P Digital Betacam Recorder

Features

*Superb picture quality and high sound quality of Digital Betacam format
*Powerful legacy playback capability of MPEG IMX, Betacam SX, Betacam SP and Betacam as well as Digital Betacam format
*HD upconversion output capability (1080/50i)(option: *1)
*Compact 4U height design and light weight
*High-quality four-channel 20-bit digital audio
*Long recording time of 124 minutes on an L-cassette and 40 minutes on an S-cassette
*Versatile interfaces including SDI I/O, analog component I/O, digital and analog audio I/O, time code I/O, analog composite I/O and 50-pin parallel remote interface as standard
*Frame-accurate insert/assemble editing
*Pre-read editing capability
*Digital audio jog sound
*High-speed picture search
*Variable speed playback
*Dynamic Motion Control (DMC) functionality
*Easy setup using "Memory Stick" media
*Shot mark handling
*UMID handling
*Built-in Tele-File reader/writer to read and write information onto and from a cassette with an optional Tele-File label attached
*Remote maintenance and monitoring over an Ethernet network using the optional BZNW-1000 ISR Proxy software
*Optional remote control panel BKDW-101
*Built-in signal generator
*Can be installed in LMS and Flexicart systems



Supplied Accessories

PSW 4x16 rack mount screws (4)

Operation manual (1)

Installation manual (1)

Optional Accessories

BKDW-101 Remote Control Panel

BKMW-102 Remote Control Unit

BKMW-103 Control Panel Extension Kit

BKMW-104 HD Up-converter Board (*1)

RCC-G Cables 9-pin/9-pin Cable

RMM-131 Rack Mount Kit

MSA-A "Memory Stick" IC Memory Media

BCT-D tapes BCT-D Series Digital Betacam

Tapes

Digital Betacam VTRs

Specifications

General

Power requirements:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

220 W

Operating temperature:

+5°C to +40°C (+41°F to +104°F)

Storage temperature:

-20°C to +60°C (-4°F to +140°F)

Humidity:

20% to 90% (relative humidity)

Mass:

23.5 kg (52 lb 11 oz)

Dimensions (W x H x D):

427 x 174 x 544 mm (16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed

Digital BETACAM:

96.7 mm/s

MPEG IMX:

53.776 mm/s

BETACAM SX:

59.575 mm/s

BETACAM/BETACAM SP:

101.51 mm/s

Recording/playback time (Digital Betacam):

Max. 124 min with BCT-D124L cassette

Fast forward/rewind time:

Approx. 3 min with BCT-D124L cassette

Search speed range

Digital BETACAM:

±50 times normal playback speed

MPEG IMX:

±78 times normal playback speed

BETACAM SX:

±78 times normal playback speed

BETACAM/BETACAM SP:

±42 times normal playback speed

Servo lock time:

0.7 s or less (from standby on)

Load/unload time:

6 s or less

Input/output signals

Analog composite input:

BNC (x2, including one loop through output), 1.0 Vp-p, 75 Ω, sync negative

Analog composite output:

BNC (x3, including one character out), 1.0 Vp-p, 75 Ω, sync negative

Analog component input:

BNC (x3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

Analog component output:

BNC (x3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

SDI input:

BNC (x2, including one active through out), SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDI output:

BNC (x3, including one character out), SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

HD-SDI output (option):

BNC (x3)

Analog audio input:

XLR (x4) (4CH: channel selectable)

Analog audio output:

XLR (x4) (4CH: channel selectable)

Cue audio input:

XLR (x1, only Digital Betacam recording)

Cue audio output:

XLR (x1, only Digital Betacam playback)

Digital audio input:

BNC (x2), 4 channels, AES/EBU, default 48 kHz (32 to 48 kHz with sample rate converter), complies with AES-3id-1995

Digital audio output:

BNC (x4), 8 channels, AES/EBU, 48 kHz fixed, complies with AES-3id-1995

Remote control

Remote (RS-422A):

D-sub 9-pin (x2), Sony 9-pin remote interface

RS-232C (ISR*):

D-sub 9-pin (x1), RS-232C interface

Parallel remote:

D-sub 50-pin (x1)

Video control:

D-sub 15-pin (x1, for connection with BVR-50P Video Controller)

D-sub 9-pin (x1, for connection with HKDV-503/900 Video Controller)

Control panel:

Circular connector 10-pin

Time code input:

XLR (x1)

Time code output:

XLR (x1)

Memory card insertion slot:

Memory Stick slot (x1)

Monitor output L/R:

XLR (x2) (channel selectable)

Phones:

JM-60 Stereo phone jack

Processor adjustment range

Video level:

±3 dB/ -∞ to 3 dB selectable

Chroma level:

±3 dB/ -∞ to 3 dB selectable

Set up/black level:

±30 IRE/±210 mV

Chroma phase/hue:

±30°

System sync phase:

±15 μs

System SC phase:

±200 ns

Y/C delay:

±100 ns (BETACAM/BETACAM SP playback only)

Composite input level:

±3 dB

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

10 bits/sample

Error correction:

Reed-Solomon code

Digital input to analog component output:

D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 62 dB or more, K-factor (2T pulse): 1% or less

Analog component input to analog

component output:

A/D and D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more, K-factor (2T pulse): 1% or less, LF non-linearity: 3% or less

Analog composite input to analog composite output:

A/D and D/A quantization: 10 bits/sample,

Bandwidth: 0 to 5.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more, Differential gain:

2% or less, Differential phase: 2° or less

Y/C delay: 20 ns or less, K-factor (2T

pulse): 1% or less

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

20 bits/sample

Analog input to analog output:

Frequency response (0 dB at 1 kHz): 20 Hz to 20 kHz +0.5/-1.0 dB

Dynamic range (at 1 kHz, emphasis ON):

More than 95 dB

Distortion (at 1 kHz, emphasis ON,

reference level): Less than 0.05%

Cross talk (at 1 kHz, between any two

channels): Less than -80 dB, Wow & flutter:

Below measurable level

Head room:

20 dB (18 dB selectable)

Emphasis (ON/OFF selectable in REC mode):

T1=50 μs, T2=15 μs

*ISR: Interactive Status Reporting

DVW-2000 Digital Betacam Recorder

Features

*Superb picture quality and high sound quality of Digital Betacam format *HD upconversion output capability (1080/59.94i, 720/59.94p)(option: *1) *Compact 4U height design and light weight *High-quality four-channel 20-bit digital audio *Long recording time of 124 minutes on an L-cassette and 40 minutes on an S-cassette *Versatile interfaces including SDI I/O, analog component I/O, digital and analog audio I/O, time code I/O, analog composite I/O and 50-pin parallel remote interface as standard *Frame-accurate insert/assemble editing *Pre-read editing capability *Digital audio jog sound *High-speed picture search *Variable speed playback *Dynamic Motion Control (DMC) functionality *Easy setup using "Memory Stick" media *Shot mark handling *UMID handling *Built-in Tele-File reader/writer to read and write information onto and from a cassette with an optional Tele-File label attached *Remote maintenance and monitoring over an Ethernet network using the optional BZNW-1000 ISR Proxy software *Optional remote control panel BKDW-101 *Built-in signal generator *Can be installed in LMS and Flexicart systems



Supplied Accessories

PSW 4x16 rack mount screws (4)
Operation manual (1)
Installation manual (1)

Optional Accessories

BKDW-101 Remote Control Panel
BKMW-102 Remote Control Unit
BKMW-103 Control Panel Extension Kit
BKMW-104 HD Up-converter Board (*1)
RCC-G Cables 9-pin/9-pin Cable
RMM-131 Rack Mount Kit
MSA-A "Memory Stick" IC Memory Media
BCT-D tapes BCT-D Series Digital Betacam
Tapes

Digital Betacam VTRs

Specifications

General

Power requirements:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

200 W

Operating temperature:

+5°C to +40°C (+41°F to +104°F)

Storage temperature:

-20°C to +60°C (-4°F to +140°F)

Humidity:

20% to 90% (relative humidity)

Mass:

23.5 kg (52 lb 11 oz)

Dimensions (W x H x D):

427 x 174 x 544 mm (16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed

96.7 mm/s

Recording/playback time (Digital Betacam):

Max. 124 min with BCT-D124L cassette

Fast forward/rewind time:

Approx. 3 min with BCT-D124L cassette

Search speed range

±50 times normal playback speed

Servo lock time:

0.5 s or less (from standby on)

Load/unload time:

6 s or less

Input/output signals

Analog composite input:

BNC (x2, including one loop through output), 1.0 Vp-p, 75 Ω, sync negative

Analog composite output:

BNC (x3, including one character out), 1.0 Vp-p, 75 Ω, sync negative

Analog component input:

BNC (x3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

Analog component output:

BNC (x3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

SDI input:

BNC (x2, including one active through out), SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDI output:

BNC (x3, including one character out), SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

HD-SDI output (option):

BNC (x3)

Analog audio input:

XLR (x4) (4CH: channel selectable)

Analog audio output:

XLR (x4) (4CH: channel selectable)

Cue audio input:

XLR (x1, only Digital Betacam recording)

Cue audio output:

XLR (x1, only Digital Betacam playback)

Digital audio input:

BNC (x2), 4 channels, AES/EBU, default 48 kHz (32 to 48 kHz with sample rate converter), complies with AES-3id-1995

Digital audio output:

BNC (x2), 4 channels, AES/EBU, 48 kHz fixed, complies with AES-3id-1995

Remote control

Remote (RS-422A):

D-sub 9-pin (x2), Sony 9-pin remote interface

RS-232C (ISR*):

D-sub 9-pin (x1), RS-232C interface

Parallel remote:

D-sub 50-pin (x1)

Video control:

D-sub 15-pin (x1, for connection with BVR-50 Video Controller)

D-sub 9-pin (x1, for connection with

HKDV-503/900 Video Controller)

Control panel:

Circular connector 10-pin

Time code input:

XLR (x1)

Time code output:

XLR (x1)

Memory card insertion slot:

Memory Stick slot (x1)

Monitor output L/R:

XLR (x2) (channel selectable)

Phones:

JM-60 Stereo phone jack

Processor adjustment range

Video level:

±3 dB/ -∞ to 3 dB selectable

Chroma level:

±3 dB/ -∞ to 3 dB selectable

Set up/black level:

±30 IRE/±210 mV

Chroma phase/hue:

±30°

System sync phase:

±15 μs

System SC phase:

±200 ns

Composite input level:

±3 dB

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

10 bits/sample

Error correction:

Reed-Solomon code

Digital input to analog component output:

D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 62 dB or more, K-factor (2T pulse):

1% or less

Analog component input to analog component output:

A/D and D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more, K-factor (2T pulse):

1% or less, LF non-linearity: 3% or less

Analog composite input to analog composite output:

A/D and D/A quantization: 10 bits/sample,

Bandwidth: 0 to 5.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more, Differential gain:

2% or less, Differential phase: 2° or less

Y/C delay: 20 ns or less, K-factor (2T pulse):

1% or less

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

20 bits/sample

Analog input to analog output:

Frequency response (0 dB at 1 kHz): 20 Hz to 20 kHz +0.5/-1.0 dB

Dynamic range (at 1 kHz, emphasis ON): More than 95 dB

Distortion (at 1 kHz, emphasis ON, reference level): Less than 0.05%

Cross talk (at 1 kHz, between any two channels):

Less than -80 dB, Wow & flutter: Below measurable level

Head room:

20 dB (18 dB selectable)

Emphasis (ON/OFF selectable in REC mode):

T1=50 μs, T2=15 μs

*ISR: Interactive Status Reporting

DVW-2000P Digital Betacam Recorder

Features

*Superb picture quality and high sound quality of Digital Betacam format
 *HD upconversion output capability (1080/50i)(option: *1)
 *Compact 4U height design and light weight
 *High-quality four-channel 20-bit digital audio
 *Long recording time of 124 minutes on an L-cassette and 40 minutes on an S-cassette
 *Versatile interfaces including SDI I/O, analog component I/O, digital and analog audio I/O, time code I/O, analog composite I/O and 50-pin parallel remote interface as standard
 *Frame-accurate insert/assemble editing
 *Pre-read editing capability
 *Digital audio jog sound
 *High-speed picture search
 *Variable speed playback
 *Dynamic Motion Control (DMC) functionality
 *Easy setup using "Memory Stick" media
 *Shot mark handling
 *UMID handling
 *Built-in Tele-File reader/writer to read and write information onto and from a cassette with an optional Tele-File label attached
 *Remote maintenance and monitoring over an Ethernet network using the optional BZNW-1000 ISR Proxy software
 *Optional remote control panel BKDW-101
 *Built-in signal generator
 *Can be installed in LMS and Flexicart systems



Supplied Accessories

PSW 4x16 rack mount screws (4)
 Operation manual (1)
 Installation manual (1)

Optional Accessories

BKDW-101 Remote Control Panel
 BKMW-102 Remote Control Unit
 BKMW-103 Control Panel Extension Kit
 BKMW-104 HD Up-converter Board (*1)
 RCC-G Cables 9-pin/9-pin Cable
 RMM-131 Rack Mount Kit
 MSA-A "Memory Stick" IC Memory Media
 BCT-D tapes BCT-D Series Digital BETACAM Tapes

Digital Betacam VTRs

Specifications

General

Power requirements:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

200 W

Operating temperature:

+5°C to +40°C (+41°F to +104°F)

Storage temperature:

-20°C to +60°C (-4°F to +140°F)

Humidity:

20% to 90% (relative humidity)

Mass:

23.5 kg (52 lb 11 oz)

Dimensions (W x H x D):

427 x 174 x 544 mm (16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed

96.7 mm/s

Recording/playback time (Digital Betacam):

Max. 124 min with BCT-D124L cassette

Fast forward/rewind time:

Approx. 3 min with BCT-D124L cassette

Search speed range

±50 times normal playback speed

Servo lock time:

0.7 s or less (from standby on)

Load/unload time:

6 s or less

Input/output signals

Analog composite input:

BNC (x2, including one loop through output),
1.0 Vp-p, 75 Ω, sync negative

Analog composite output:

BNC (x3, including one character out), 1.0 Vp-p,
75 Ω, sync negative

Analog component input:

BNC (x3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω,
sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

Analog component output:

BNC (x3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω,
sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

SDI input:

BNC (x2, including one active through out),
SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDI output:

BNC (x3, including one character out), SMPTE
259M (ITU-R BT.656-3), 270 Mb/s

HD-SDI output (option):

BNC (x3)

Analog audio input:

XLR (x4) (4CH: channel selectable)

Analog audio output:

XLR (x4) (4CH: channel selectable)

Cue audio input:

XLR (x1, only Digital Betacam recording)

Cue audio output:

XLR (x1, only Digital Betacam playback)

Digital audio input:

BNC (x2), 4 channels, AES/EBU, default 48 kHz
(32 to 48 kHz with sample rate converter),
complies with AES-3id-1995

Digital audio output:

BNC (x2), 4 channels, AES/EBU, 48 kHz fixed,
complies with AES-3id-1995

Remote control

Remote (RS-422A):

D-sub 9-pin (x2), Sony 9-pin remote interface

RS-232C (ISR*):

D-sub 9-pin (x1), RS-232C interface

Parallel remote:

D-sub 50-pin (x1)

Video control:

D-sub 15-pin (x1, for connection with
BVR-50P Video Controller)

D-sub 9-pin (x1, for connection with
HKDV-503/900 Video Controller)

Control panel:

Circular connector 10-pin

Time code input:

XLR (x1)

Time code output:

XLR (x1)

Memory card insertion slot:

Memory Stick slot (x1)

Monitor output L/R:

XLR (x2) (channel selectable)

Phones:

JM-60 Stereo phone jack

Processor adjustment range

Video level:

±3 dB/ -∞ to 3 dB selectable

Chroma level:

±3 dB/ -∞ to 3 dB selectable

Set up/black level:

±30 IRE/±210 mV

Chroma phase/hue:

±30°

System sync phase:

±15 μs

System SC phase:

±200 ns

Composite input level:

±3 dB

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

10 bits/sample

Error correction:

Reed-Solomon code

Digital input to analog component output:

D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 62 dB or more, K-factor (2T pulse):

1% or less

Analog component input to analog component output:

A/D and D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more, K-factor (2T pulse):

1% or less, LF non-linearity: 3% or less

Analog composite input to analog composite output:

A/D and D/A quantization: 10 bits/sample,

Bandwidth: 0 to 5.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more, Differential gain:

2% or less, Differential phase: 2° or less

Y/C delay: 20 ns or less, K-factor (2T pulse):

1% or less

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

20 bits/sample

Analog input to analog output:

Frequency response (0 dB at 1 kHz): 20 Hz to

20 kHz +0.5/-1.0 dB

Dynamic range (at 1 kHz, emphasis ON): More

than 95 dB

Distortion (at 1 kHz, emphasis ON, reference

level): Less than 0.05%

Cross talk (at 1 kHz, between any two channels):

Less than -80 dB, Wow & flutter: Below

measurable level

Head room:

20 dB (18 dB selectable)

Emphasis (ON/OFF selectable in REC mode):

T1=50 μs, T2=15 μs

*ISR: Interactive Status Reporting

SONY

MPEG IMX VTRs

MSW-M2000P/1	184
MSW-A2000P/1	186
MSW-2000	188
MSW-M2100P/1	190

MSW-M2000P/1 MPEG IMX Recorder

Features

- *Superb picture quality and high sound quality of MPEG IMX format
- *8-bit 4:2:2 component digital recording
- *MPEG-2 4:2:2P@ML data compression at 50 Mb/s
- *SDTI-CP(*1) output allows interface with SDTI-CP equipped devices such as servers, non-linear editors
- *Data transfer at up to twice normal speed as standard
- *Legacy playback of MPEG IMX, Digital Betacam, Betacam SX, Betacam SP and Betacam formats
- *IP-network interface to allow audio and video materials to be sent and received across a standard network (option: *2)
- *HD upconversion output capability (1080/59.94i, 1080/50i and 720/59.94p)(option: *3)
- *Frame-accurate insert/assemble editing
- *Pre-read editing capability
- *Eight channels of 16-bit digital audio or four channels of 24-bit digital audio
- *525/625 switchable operation
- *Variable speed control
- *High speed color picture search
- *Dynamic Motion Control (DMC)
- *Long recording and playback time of up to 184 minutes on L-cassette, 60 minutes on S-cassette
- *Compact 4U-height design
- *Versatile interfaces; analog composite I/O, analog component I/O, SDI I/O, SDTI-CP I/O, analog audio (4-ch), AES/EBU digital audio (16 bit-8ch/24 bit-4ch), and audio monitor (2-ch)
- *Easy setup using "Memory Stick" media
- *Shot mark handling
- *UMID handling
- *Built-in Tele-File reader/writer module to read and write information onto and from a cassette with an optional Tele-File label attached
- *Automatic scene change detect function
- *Optional remote control panel BKMW-101

(*1) Serial Data Transport Interface-Content Packages (*2) Requires optional BKMW-E3000 Network Interface Board (*3) Requires optional BKMW-104 HD Upconverter Board.



Supplied Accessories

PSW 4x16 rack mount screws (4)
 Operation manual (1)
 Installation manual (1)

Optional Accessories

BKMW-101 Remote Control Panel
 BKMW-102 Remote Control Unit
 BKMW-103 Control Panel Extension Kit
 BKMW-104 HD Up-converter Board
 BKMW-E3000 Network Interface Board
 (option for e-VTR)
 RCC-G Cables 9-pin/9-pin Cable
 RMM-131 Rack Mount Kit
 MLB-1M-100 Tele-File Memory Label
 BCT-MX tapes BCT-MX Series MPEG IMX
 Tapes
 MSA-A "Memory Stick" IC Memory Media

Specifications

General

Power requirements:

AC 100 to 240 V, 50/60 Hz

Power consumption:

2A (200 W) / AC 240 V

Operating temperature:

+5 to +40 °C (+41 to +104 ° F)

Storage temperature:

-20 to +60 °C (-4 to +140 ° F)

Humidity:

20 to 90% (relative humidity)

Mass:

23.0 kg (50 lb 11 oz)

Dimensions:

427 (W) x 174 (H) x 544 (D) mm
(16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed

MPEG IMX:

64.467 (525)/53.776 (625) mm/s

Digital Betacam:

96.7 mm/s

Betacam SX:

59.515 (525)/59.575 (625) mm/s

Betacam/Betacam SP:

118.6 (525)/101.51 (625) mm/s

Recording/playback time:

Max. 184 (525)/220 (625) min with
BCT-184MXL cassette

Fast forward/rewind time:

Approx. 3.5 min with BCT-184MXL cassette

Search speed range

MPEG IMX:

±78 times normal playback speed

Digital Betacam:

±50 times normal playback speed

Betacam SX:

±78 times normal playback speed

Betacam/Betacam SP:

±35 (525)/±42 (625) times normal
playback speed

Servo lock time:

0.5 (525)/0.7 (625) s or less (from standby
on)

Load/unload time:

6 s or less

Input/output signals

Analog composite input:

BNC (2, including one loop through
output), 1.0 Vp-p, 75 Ω, sync negative

Analog composite output:

BNC (3, including one character out),
1.0 Vp-p, 75 Ω, sync negative

Analog component input:

BNC (x 3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p,
75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p,
75 Ω

Analog component output:

BNC (3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p,
75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p,
75 Ω

SDI input:

BNC (2, including one active through out),
SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDI output:

BNC (3, including one character out),
SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDTI-CP input:

BNC (1), SMPTE 326M (SDTI-CP)

SDTI-CP output:

BNC (2), SMPTE 326M (SDTI-CP)

HD-SDI output (requires optional BKMW-104 board):

BNC (3)

Analog audio input:

XLR (4) (4CH: channel selectable)

Analog audio output:

XLR (4) (4CH: channel selectable)

Cue audio output (only Digital Betacam playback):

XLR (1)

Digital audio input (CH 1/2, 3/4, 5/6, 7/8), AES/EBU:

BNC (4), default 48 kHz (32 to 48 kHz with
sample rate converter), complies with
AES-3id-1995

Digital audio output (CH 1/2, 3/4, 5/6, 7/8), AES/EBU:

BNC (4), 48 kHz fixed, Complies with
AES-3id-1995

Remote control

Remote (RS-422A):

D-sub 9-pin (2), Sony 9-pin remote
interface

RS-232C (ISR*):

D-sub 9-pin (1), RS-232C interface

Parallel remote:

D-sub 50-pin (1)

Video control (1):

D-sub 15-pin (1)

Control panel:

Circular connector 10-pin

Time code input:

XLR (1)

Time code output:

XLR (1)

Ethernet I/F (requires optional BKMW-E3000 board):

RJ-45 connector (1),
1000Base-T/100Base-TX/10Base-T

Memory card insertion slot:

Memory Stick (1), PCMCIA (1)

Monitor output L/R:

XLR (2) (channel selectable)

Phones:

JM-60 Stereo phone jack

Processor adjustment range

Video level:

±3 dB/-∞ to 3 dB selectable

Chroma level:

±3 dB/-∞ to 3 dB selectable

Set up/black level:

±30 IRE/±210 mV

Chroma phase/hue:

±30°

System sync phase:

±15 μs

System SC phase:

±200 ns

Y/C delay:

±100 ns (Betacam/Betacam SP playback
only)

Composite input level:

±3 dB

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

MPEG IMX/Betacam SX: 8 bits/sample

Error correction:

Reed-Solomon code

Digital input to analog component output:

D/A quantization: 10 bits/sample
Bandwidth: 0 to 5.75 MHz ±0.5 dB
S/N ratio: 56 dB or more K-factor (2T
pulse): 1% or less

Analog component input to analog

component output (MPEG IMX

record/playback):

A/D and D/A quantization: 10 bits/sample
Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,
R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB
S/N ratio: 56 dB or more K-factor (2T
pulse): 1% or less LF non-linearity: 3.0% or
less

Analog composite input to analog composite output (MPEG IMX record/playback):

A/D and D/A quantization: 10 bits/sample
Bandwidth: 0 to 5.75 MHz +0.5/-2.0 dB
S/N ratio: 53 dB or more Differential gain:
2% or less Differential phase: 2° or less
Y/C delay: 20 ns or less K-factor (2T
pulse): 1% or less

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

MPEG IMX: 16 or 24 bits/sample
(selectable)

Betacam SX: 16 bits/sample

Analog input to analog output (MPEG IMX

record/playback):

A/D and D/A quantization: 24 bits/sample
Frequency response (0 dB at 1kHz): 20 Hz
to 20 kHz +0.5/-1.0 dB
Dynamic range (at 1 kHz, emphasis ON):
More than 90 dB (16 bits mode), More than
95 dB (24bits mode)
Distortion (at 1 kHz, emphasis ON,
reference level): Less than 0.05%
Cross talk (at 1 kHz, between any two
channels): Less than -80 dB
Wow and flutter: Below measurable level

Head room:

20 dB (18 dB selectable)

Emphasis (ON/OFF selectable in REC mode):

T1=50 μs, T2=15 μs

*ISR: Interactive Status Reporting

MSW-A2000P/1 MPEG IMX Recorder

Features

- *Superb picture quality and high sound quality of MPEG IMX format
- *8-bit 4:2:2 component digital recording
- *MPEG-2 4:2:2P@ML data compression at 50 Mb/s
- *SDTI-CP(*1) output allows interface with SDTI-CP equipped devices such as servers, non-linear editors
- *Data transfer at up to twice normal speed as standard
- *Legacy playback capability of MPEG IMX, Betacam SX, Betacam SP and Betacam formats
- *IP-network interface to allow audio and video materials to be sent and received across a standard network (option: *2)
- *HD upconversion output capability (1080/59.94i, 1080/50i and 720/59.94p) (option: *3)
- *Frame-accurate insert/assemble editing
- *Pre-read editing capability
- *Eight channels of 16-bit digital audio or four channels of 24-bit digital audio
- *525/625 switchable operation
- *Variable speed control
- *High speed color picture search
- *Dynamic Motion Control (DMC)
- *Long recording and playback time of up to 184 minutes on L-cassette, 60 minutes on S-cassette
- *Compact 4U-height design
- *Versatile interfaces; analog composite I/O, analog component I/O, SDI I/O, SDTI-CP I/O, analog audio (4-ch), AES/EBU digital audio (16 bit-8ch/24 bit-4ch), and audio monitor (2-ch)
- *Easy setup using "Memory Stick" media
- *Shot mark handling
- *UMID handling
- *Built-in Tele-File reader/writer module to read and write information onto and from a cassette with an optional Tele-File label attached
- *Automatic scene change detect function
- *Optional remote control panel BKMW-101

(*1) Serial Data Transport Interface-Content Packages (*2) Requires optional BKMW-E3000 Network Interface Board (*3) Requires optional BKMW-104 HD Upconverter Board.



Supplied Accessories

PSW 4x16 rack mount screws (4)
 Operation manual (1)
 Installation manual (1)

Optional Accessories

BKMW-101 Remote Control Panel
 BKMW-102 Remote Control Unit
 BKMW-103 Control Panel Extension Kit
 BKMW-104 HD Up-converter Board
 BKMW-E3000 Network Interface Board
 (option for e-VTR)
 RCC-G Cables 9-pin/9-pin Cable
 RMM-131 Rack Mount Kit
 MLB-1M-100 Tele-File Memory Label
 BCT-MX tapes BCT-MX Series MPEG IMX
 Tapes
 MSA-A "Memory Stick" IC Memory Media

Specifications

General

Power requirements:

AC 100 to 240 V, 50/60 Hz

Power consumption:

2A (200 W) / AC 240 V

Operating temperature:

+5 to +40 °C (+41 to +104 ° F)

Storage temperature:

-20 to +60 °C (-4 to +140 ° F)

Humidity:

20 to 90% (relative humidity)

Mass:

23.0 kg (50 lb 11 oz)

Dimensions:

427 (W) x 174 (H) x 544 (D) mm

(16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed

MPEG IMX:

64.467 (525)/53.776 (625) mm/s

Betacam SX:

59.515 (525)/59.575 (625) mm/s

Betacam/Betacam SP:

118.6 (525)/101.51 (625) mm/s

Recording/playback time:

Max. 184 (525)/220 (625) min with

BCT-184MXL cassette

Fast forward/rewind time:

Approx. 3.5 min with BCT-184MXL cassette

Search speed range

MPEG IMX:

±78 times normal playback speed

Betacam SX:

±78 times normal playback speed

Betacam/Betacam SP:

±35 (525)/±42 (625) times normal
playback speed

Servo lock time:

0.5 (525)/0.7 (625) s or less (from standby
on)

Load/unload time:

6 s or less

Input/output signals

Analog composite input:

BNC (2, including one loop through
output), 1.0 Vp-p, 75 Ω, sync negative

Analog composite output:

BNC (3, including one character out),
1.0 Vp-p, 75 Ω, sync negative

Analog component input:

BNC (3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p,
75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p,
75 Ω

Analog component output:

BNC (3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p,
75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p,
75 Ω

SDI input:

BNC (2, including one active through out),
SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDI output:

BNC (3, including one character out),
SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDTI-CP input:

BNC (1), SMPTE 326M (SDTI-CP)

SDTI-CP output:

BNC (2), SMPTE 326M (SDTI-CP)

HD-SDI output (requires optional BKMW-104
board):

BNC (3)

Analog audio input:

XLR (4) (4CH: channel selectable)

Analog audio output:

XLR (4) (4CH: channel selectable)

Digital audio input (CH 1/2, 3/4, 5/6, 7/8),
AES/EBU:

BNC (4), default 48 kHz (32 to 48 kHz with
sample rate converter), complies with
AES-3id-1995

Digital audio output (CH 1/2, 3/4, 5/6, 7/8),
AES/EBU:

BNC (4), 48 kHz fixed, Complies with
AES-3id-1995

Remote control

Remote (RS-422A):

D-sub 9-pin (2), Sony 9-pin remote
interface

RS-232C (ISR)*:

D-sub 9-pin (1), RS-232C interface

Parallel remote:

D-sub 50-pin (1)

Video control (1):

D-sub 15-pin (1)

Control panel:

Circular connector 10-pin

Time code input:

XLR (1)

Time code output:

XLR (1)

Ethernet I/F (requires optional BKMW-E3000
board):

RJ-45 (1),

100Base-T/100Base-TX/10Base-T

Memory card insertion slot:

Memory Stick (1), PCMCIA (1)

Monitor output L/R:

XLR (2) (channel selectable)

Phones:

JM-60 Stereo phone jack

Processor adjustment range

Video level:

±3 dB/∞ to 3 dB selectable

Chroma level:

±3 dB/∞ to 3 dB selectable

Set up/black level:

±30 IRE/±210 mV

Chroma phase/hue:

±30°

System sync phase:

±15 μs

System SC phase:

±200 ns

Y/C delay:

±100 ns (Betacam/Betacam SP playback
only)

Composite input level:

±3 dB

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

MPEG IMX/Betacam SX: 8 bits/sample

Error correction:

Reed-Solomon code

Digital input to analog component output:

D/A quantization: 10 bits/sample

Bandwidth: 0 to 5.75 MHz ±0.5 dB

S/N ratio: 56 dB or more K-factor (2T
pulse): 1% or less

Analog component input to analog

component output (MPEG IMX

record/playback):

A/D and D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more K-factor (2T
pulse): 1% or less LF non-linearity: 3.0% or
less

Analog composite input to analog composite
output (MPEG IMX record/playback):

A/D and D/A quantization: 10 bits/sample

Bandwidth: 0 to 5.75 MHz +0.5/-2.0 dB

S/N ratio: 53 dB or more Differential gain:

2% or less Differential phase: 2° or less

Y/C delay: 20 ns or less K-factor (2T
pulse): 1% or less

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

MPEG IMX: 16 or 24 bits/sample

(selectable)

Betacam SX: 16 bits/sample

Analog input to analog output (MPEG IMX
record/playback):

A/D and D/A quantization: 24 bits/sample

Frequency response (0 dB at 1kHz): 20 Hz
to 20 kHz +0.5/-1.0 dB

Dynamic range (at 1 kHz, emphasis ON):

More than 90 dB (16 bits mode), More than
95 dB (24bits mode)

Distortion (at 1 kHz, emphasis ON,
reference level): Less than 0.05%

Cross talk (at 1 kHz, between any two
channels): Less than -80 dB

Wow and flutter: Below measurable level

Head room:

20 dB (18 dB selectable)

Emphasis (ON/OFF selectable in REC mode):

T1=50 μs, T2=15 μs

*ISR: Interactive Status Reporting

MSW-2000 MPEG IMX Recorder

Features

*Superb picture quality and high sound quality of MPEG IMX format *8-bit 4:2:2 component digital recording *MPEG-2 4:2:2P@ML compression at 50 Mb/s *SDTI-CP (Serial Data Transport Interface-Content Packages) output allows interface with other SDTI-CP equipped devices such as servers, non-linear editors *Data transfer at up to twice normal speed (option: *1) *Legacy playback of MPEG IMX and Betacam SX formats *IP-network interface to allow audio and video materials to be sent and received across a standard network (option: *2) *HD upconversion output capability (1080/59.94i, 1080/50i and 720/59.94p)(option: *3) *Frame-accurate insert/assemble editing *Pre-read editing capability *Eight channels of 16-bit digital audio or four channels of 24-bit digital audio *525/625 switchable operation *Variable speed control *High speed color picture search *Dynamic Motion Control (DMC) *Long recording and playback time of up to 184 minutes on L-cassette, 60 minutes on S-cassette *Compact 4U-height design *Versatile interfaces; analog composite I/O, analog component I/O, SDI I/O, SDTI-CP I/O, analog audio (4-ch), AES/EBU digital audio (16 bit-8ch/24 bit-4ch), and audio monitor (2-ch) *UMID handling *Shot mark handling *Built-in Tele-File reader/writer module to read and write information onto and from a cassette with an optional Tele-File label attached *Optional remote control panel BKMW-101

(*1) requires a DPR-208 board (service part) (*2) requires optional BKMW-E3000 Network Interface Board (*3) requires optional BKMW-104 HD Upconverter Board.



Supplied Accessories

PSW 4x16 rack mount screws (4)
Operation manual (1)
Installation manual (1)

Optional Accessories

BKMW-101 Remote Control Panel
BKMW-102 Remote Control Unit
BKMW-103 Control Panel Extension Kit
BKMW-104 HD Up-converter Board
BKMW-E3000 Network Interface Board
(option for e-VTR)
RCC-G Cables 9-pin/9-pin Cable
RMM-131 Rack Mount Kit
MLB-1M-100 Tele-File Memory Label
BCT-MX tapes BCT-MX Series MPEG IMX
Tapes

Specifications

General

Power requirements:

AC 100 to 240 V, 50/60 Hz

Power consumption:

2A (200 W) / AC 240 V

Operating temperature:

+5 to +40 °C (+41 to +104 ° F)

Storage temperature:

-20 to +60 °C (-4 to +140 ° F)

Humidity:

20 to 90% (relative humidity)

Mass:

23.0 kg (50 lb 11 oz)

Dimensions:

427 (W) x 174 (H) x 544 (D) mm

(16 7 / 8 x 6 7 / 8 x 21 1 / 2 inches)

Tape speed

MPEG IMX:

64.467 (525)/53.776 (625) mm/s

Betacam SX:

59.515 (525)/59.575 (625) mm/s

Recording/playback time:

Max. 184 (525)/220 (625) min with

BCT-184MXL cassette

Fast forward/rewind time:

Approx. 3.5 min with BCT-184MXL cassette

Search speed range

MPEG IMX:

±78 times normal playback speed

Betacam SX:

±78 times normal playback speed

Servo lock time:

0.5 (525)/0.7 (625) s or less (from standby on)

Load/unload time:

6 s or less

Input/output signals

Analog composite input:

BNC (2, including one loop through output), 1.0 Vp-p, 75 Ω, sync negative

Analog composite output:

BNC (3, including one character out), 1.0 Vp-p, 75 Ω, sync negative

Analog component input:

BNC (x 3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

Analog component output:

BNC (3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p, 75 Ω

SDI input:

BNC (2, including one active through out), SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDI output:

BNC (3, including one character out), SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDTI-CP input:

BNC (1), SMPTE 326M (SDTI-CP)

SDTI-CP output:

BNC (2), SMPTE 326M (SDTI-CP)

HD-SDI output (requires optional BKMW-104 board):

BNC (x3)

Analog audio input:

XLR (4) (4CH: channel selectable)

Analog audio output:

XLR (4) (4CH: channel selectable)

Digital audio input (CH 1/2, 3/4, 5/6, 7/8), AES/EBU:

BNC (4), default 48 kHz (32 to 48 kHz with sample rate converter), complies with AES-3id-1995

Digital audio output (CH 1/2, 3/4, 5/6, 7/8), AES/EBU:

BNC (4), 48 kHz fixed, Complies with AES-3id-1995

Remote control

Remote (RS-422A):

D-sub 9-pin (2), Sony 9-pin remote interface

RS-232C (ISR*):

D-sub 9-pin (1), RS-232C interface

Parallel remote:

D-sub 50-pin (1)

Video control (1):

D-sub 15-pin (1)

Control panel:

Circular connector 10-pin

Time code input:

XLR (1)

Time code output:

XLR (1)

Ethernet I/F (requires optional BKMW-E3000 board):

RJ-45 (1),

1000Base-T/100Base-TX/10Base-T

Memory card insertion slot:

Memory Stick (1), PCMCIA (1)

Monitor output L/R:

XLR (2) (channel selectable)

Phones:

JM-60 Stereo phone jack

Processor adjustment range

Video level:

±3 dB/-∞ to 3 dB selectable

Chroma level:

±3 dB/-∞ to 3 dB selectable

Set up/black level:

±30 IRE/±210 mV

Chroma phase/hue:

±30°

System sync phase:

±15 μs

System SC phase:

±200 ns

Composite input level:

±3 dB

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

MPEG IMX/Betacam SX: 8 bits/sample

Error correction:

Reed-Solomon code

Digital input to analog component output:

D/A quantization: 10 bits/sample

Bandwidth: 0 to 5.75 MHz ±0.5 dB

S/N ratio: 56 dB or more K-factor (2T

pulse): 1% or less

Analog component input to analog

component output (MPEG IMX

record/playback):

A/D and D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more K-factor (2T

pulse): 1% or less LF non-linearity: 3.0% or less

Analog composite input to analog composite

output (MPEG IMX record/playback):

A/D and D/A quantization: 10 bits/sample

Bandwidth: 0 to 5.75 MHz +0.5/-2.0 dB

S/N ratio: 53 dB or more Differential gain:

2% or less Differential phase: 2° or less

Y/C delay: 20 ns or less K-factor (2T

pulse): 1% or less

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

MPEG IMX: 16 or 24 bits/sample

(selectable)

Betacam SX: 16 bits/sample

Analog input to analog output (MPEG IMX

record/playback):

A/D and D/A quantization: 24 bits/sample

Frequency response (0 dB at 1kHz): 20 Hz to 20 kHz +0.5/-1.0 dB

Dynamic range (at 1 kHz, emphasis ON):

More than 90 dB (16 bits mode), More than

95 dB (24bits mode)

Distortion (at 1 kHz, emphasis ON,

reference level): Less than 0.05%

Cross talk (at 1 kHz, between any two

channels): Less than -80 dB

Wow and flutter: Below measurable level

Head room:

20 dB (18 dB selectable)

Emphasis (ON/OFF selectable in REC mode):

T1=50 μs, T2=15 μs

*ISR: Interactive Status Reporting

MSW-M2100P/1 MPEG IMX Player

Features

*Superb picture quality and high sound quality of MPEG IMX format *Legacy playback capability; MPEG IMX, Digital Betacam, Betacam SX, Betacam SP and Betacam formats *SDTI-CP(*1) output to allow interface with SDTI-CP equipped devices such as servers, non-linear editors *Data transfer at up to twice normal speed as standard *IP-network interface to allow audio and video materials to be sent across a standard network (option: *2) *HD upconversion output capability (1080/59.94i, 1080/50i and 720/59.94p)(option: *3) *Versatile interfaces; analog composite output, analog component output, SDI output, SDTI-CP output, analog audio (4-ch), AES/EBU digital audio (16 bit-8ch/24 bit-4ch), audio monitor (2-ch), RS-422A (Sony 9-pin), RS-232C, and parallel 50-pin *Eight channels of 16-bit digital audio or four channels of 24-bit digital audio *525/625 switchable operation *Variable speed control *High speed picture search *Dynamic Motion Control (DMC) *Long playback time of up to 184 minutes on L-cassette, 60 minutes on S-cassette *Compact 4U-height design *Easy setup using "Memory Stick" media *Shot Mark handling *Built-in Tele-File reader/writer to read and write information onto and from a cassette with an optional Tele-File label attached *Automatic scene change detect function *Optional remote panel BKMW-101

(*1) Serial Data Transport Interface-Content Packages (*2) Requires optional BKMW-E3000 Network Interface Board (*3) Requires optional BKMW-104 HD Upconverter Board.

Supplied Accessories

PSW 4x16 rack mount screws (4)
Operation manual (1)
Installation manual (1)

Optional Accessories

BKMW-101 Remote Control Panel
BKMW-102 Remote Control Unit
BKMW-103 Control Panel Extension Kit
BKMW-104 HD Up-converter Board
BKMW-E3000 Network Interface Board
(option for e-VTR)
RCC-G Cables 9-pin/9-pin Cable
RMM-131 Rack Mount Kit
MLB-1M-100 Tele-File Memory Label
BCT-MX tapes BCT-MX Series MPEG IMX
Tapes
MSA-A "Memory Stick" IC Memory Media



Specifications

General

Power requirements:

AC 100 to 240 V, 50/60 Hz

Power consumption:

2A (200 W) / AC 240 V

Operating temperature:

+5 to +40 °C (+41 to +104 ° F)

Storage temperature:

-20 to +60 °C (-4 to +140 ° F)

Humidity:

20 to 90% (relative humidity)

Mass:

23.0 kg (50 lb 11 oz)

Dimensions:

427 (W) x 174 (H) x 544 (D) mm

(16 7/8 x 6 7/8 x 21 1/2 inches)

Tape speed

MPEG IMX:

64.467 (525)/53.776 (625) mm/s

Digital Betacam:

96.7 mm/s

Betacam SX:

59.515 (525)/59.575 (625) mm/s

Betacam/Betacam SP:

118.6 (525)/101.51 (625) mm/s

Playback time:

Max. 184 (525)/220 (625) min with

BCT-184MXL cassette

Fast forward/rewind time:

Approx. 3.5 min with BCT-184MXL cassette

Search speed range

MPEG IMX:

±78 times normal playback speed

Digital Betacam:

±50 times normal playback speed

Betacam SX:

±78 times normal playback speed

Betacam/Betacam SP:

±35 (525)/±42 (625) times normal playback speed

Servo lock time:

0.5 (525)/0.7 (625) s or less (from standby on)

Load/unload time:

6 s or less

Output signals

Analog composite output:

BNC (3, including one character out),
1.0 Vp-p, 75 Ω, sync negative

Analog component output:

BNC (3, for 1 set, Y/R-Y/B-Y), Y: 1.0 Vp-p,
75 Ω, sync negative, R-Y/B-Y: 0.7 Vp-p,
75 Ω

SDI output:

BNC (3, including one character out),
SMPTE 259M (ITU-R BT.656-3), 270 Mb/s

SDTI-CP output:

BNC (2), SMPTE 326M (SDTI-CP)

HD-SDI output (requires optional BKMW-104 board):

BNC (3)

Analog audio input:

XLR (4) (4CH: channel selectable)

Analog audio output:

XLR (4) (4CH: channel selectable)

Cue audio output:

XLR (1, only Digital Betacam playback)

Digital audio output (CH 1/2, 3/4, 5/6, 7/8),

AES/EBU:

BNC (4), 48 kHz fixed, Complies with
AES-31d-1995

Remote control

Remote (RS-422A):

D-sub 9-pin (2), Sony 9-pin remote
interface

RS-232C (ISR*):

D-sub 9-pin (1), RS-232C interface

Parallel remote:

D-sub 50-pin (1)

Video control (1):

D-sub 15-pin (1)

Control panel:

Circular connector 10-pin

Time code input:

XLR (1)

Time code output:

XLR (1)

Ethernet I/F (requires optional BKMW-E3000 board):

RJ-45 (1),

1000Base-T/100Base-TX/10Base-T

Memory card insertion slot:

Memory Stick (1), PCMCIA (1)

Monitor output L/R:

XLR (2) (channel selectable)

Phones:

JM-60 Stereo phone jack

Processor adjustment range

Video level:

±3 dB/-∞ to 3 dB selectable

Chroma level:

±3 dB/-∞ to 3 dB selectable

Set up/black level:

±30 IRE/±210 mV

Chroma phase/hue:

±30°

System sync phase:

±15 μs

System SC phase:

±200 ns

Y/C delay:

±100 ns (Betacam/Betacam SP playback only)

Digital video performance

Sampling frequency:

Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz

Quantization:

MPEG IMX/BETACAM SX: 8 bits/sample,

Digital BETACAM: 10 bits/sample

Error correction:

Reed-Solomon code

Digital input to analog component output:

D/A quantization: 10 bits/sample

Bandwidth: 0 to 5.75 MHz ±0.5 dB

S/N ratio: 56 dB or more K-factor (2T pulse): 1% or less

Analog component input to analog

component output (MPEG IMX

record/playback):

A/D and D/A quantization: 10 bits/sample

Bandwidth: Y: 0 to 5.75 MHz +0.5/-2.0 dB,

R-Y/B-Y: 0 to 2.75 MHz +0.5/-2.0 dB

S/N ratio: 56 dB or more K-factor (2T pulse): 1% or less LF non-linearity: 3.0% or less

Analog composite input to analog composite

output (MPEG IMX record/playback):

A/D and D/A quantization: 10 bits/sample

Bandwidth: 0 to 5.75 MHz +0.5/-2.0 dB

S/N ratio: 53 dB or more Differential gain:

2% or less Differential phase: 2° or less

Y/C delay: 20 ns or less K-factor (2T

pulse): 1% or less

Digital audio performance

Sampling frequency:

48 kHz (synchronized with video)

Quantization:

MPEG IMX: 16 or 24 bits/sample (selectable)

Betacam SX: 16 bits/sample

Digital Betacam: 20 bits/sample

Analog composite output (Digital Betacam playback):

A/D and D/A quantization: 24 bits/sample

Frequency response (0 dB at 1kHz): 20 Hz

to 20 kHz +0.5/-1.0 dB

Dynamic range (at 1 kHz, emphasis ON):

More than 95 dB

Distortion (at 1 kHz, emphasis ON,

reference level): Less than 0.05%

Cross talk (at 1 kHz, between any two

channels): Less than -80 dB

Wow and flutter: Below measurable level

Head room:

20 dB (18 dB selectable)

*ISR: Interactive Status Reporting

SONY

J-series Compact Players

J-30	194
J-30/SDI	195

J-30 1/2" Standard Definition Compact Player

The J-30 Compact Player is an affordable, compact office viewer to be used by producers, journalists and production staff. Retaining the fundamental features of its predecessor designed for viewing, logging and source feeding to the nonlinear editors, the J-30 adds the i.LINK interface, opening the door to the DV World for the Betacam users. In addition, the J-30 has enhanced interfacing capability and operational versatility.

Features

*DV-device connectivity *Powerful playback capability (Betacam, Betacam SP, Betacam SX, MPEG IMX and Digital Betacam formats) *Compact body design *Replay of both small and large cassettes *525/625 versatility *Analog component output *Supports wireless infrared remote controller *Flexible audio outputs



Supplied Accessories

Infrared Remote Controller (1)

Specifications

General

Power requirement:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

55 W

Operating temperature:

+5 °C to +40 °C (+41 °F to +104 °F)

Humidity:

25% to 80% (relative humidity)

Mass:

8.2 kg (18 lb 1 oz)

Dimension (W x H x D):

307 x 100 x 397 mm (12 1/8 x 4 x 15 3/4 inches)

Tape speed:

Digital Betacam: 96.7 mm/s

MPEG IMX: 64.467 mm/s (525 mode),

53.776 mm/s (625 mode)

Betacam SX: 59.515 mm/s (525 mode),

59.575 mm/s (625 mode)

Betacam/Betacam SP: 118.6 mm/s,

101.5 mm/s (625 mode)

Playback time:

Digital Betacam: Max. 124 min. with

BCT-D124L

MPEG IMX: Max. 184 min. (525 mode)/220

min. (625 mode) with BCT-184MXL

Betacam SX: Max. 194 min. with

BCT-194SXL

Betacam/Betacam SP: Max. 90 min. (525

mode)/108 min. (625 mode) with

BCT-90MLA

Fast forward/rewind:

Digital Betacam: Approx. 5 min. with

BCT-D124L

MPEG IMX: Approx. 5 min. with

BCT-184MXL

Betacam SX: Approx. 5 min. with

BCT-184SXL

Betacam/Betacam SP: Approx. 5 min. with

BCT-90MLA

Search speed range:

Digital Betacam: ± 21 times normal

playback speed

MPEG IMX: ± 32 times normal playback

speed

Betacam SX: ± 35 times normal playback

speed

Betacam/Betacam SP: ± 18 times (525

mode), ± 20 times (625 mode) normal

playback speed

Servo lock time:

1.5 s or less (from standby on)

Load/unload time:

7 s or less

Input signal

Ext. sync:

BNC (x 1), Frame lock

Output signal

Analog composite:

BNC (x 1), Pin Jack (x 1), 1.0 Vp-p, 75 Ω

S-video output:

Mini DIN 4-pin (x 1), Y: 1.0 Vp-p, C: 0.286

Vp-p burst, 75 Ω

Analog component output:

BNC (x 3), Y: 1.0 Vp-p, R-Y/B-Y: 0.7 Vp-p,

75 Ω

i.LINK (DV) output:

6-pin (x 1), IEEE 1394

Monitor output L/R:

Pin Jack (x 2): -10 dBu at 47 k Ω load,

unbalanced, XLR (male x 2): +4 dBm, 600

Ω load, low impedance, balanced

Headphone output:

JM-60 Stereo Phone Jack, $-\infty$ to -12 dBu at

8 Ω load, unbalanced

Remote Control

RS-422A:

D-sub 9-pin (female) (x 1), Sony 9-pin

remote interface

RS-232C:

D-sub 9-pin (male) (x 1)

Wireless:

SIRCS

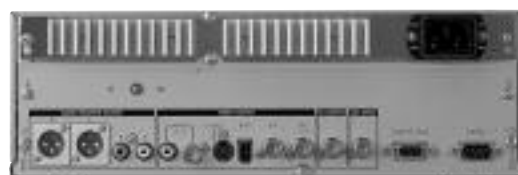
J-30/SDI 1/2" Standard Definition Compact Player

The J-30/SDI Compact Player is an affordable, compact office viewer to be used by producers, journalists and production staff. Retaining the fundamental features of its predecessor designed for viewing, logging and source feeding to the nonlinear editors, the J-30/SDI adds the i.LINK interface, opening the door to the DV World for the Betacam users. In addition, the J-30/SDI has enhanced interfacing capability and operational versatility.



Features

*DV-device connectivity *Powerful playback capability (Betacam, Betacam SP, Betacam SX, MPEG IMX and Digital Betacam formats) *Compact body design *Replay of both small and large cassettes *525/625 versatility *SDI outputs (x 2) *Supports wireless infrared remote controller *Flexible audio outputs *UMID and Essence mark readable



Supplied Accessories

Infrared Remote Controller (1)

Specifications

General

Power requirement:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

55 W

Operating temperature:

+5 °C to +40 °C (+41 °F to +104 °F)

Humidity:

25% to 80% (relative humidity)

Mass:

8.2 kg (18 lb 1 oz)

Dimension (W x H x D):

307 x 100 x 397 mm (12 1/8 x 4 x 15 3/4 inches)

Tape speed:

Digital Betacam: 96.7 mm/s

MPEG IMX: 64.467 mm/s (525 mode),

53.776 mm/s (625 mode)

Betacam SX: 59.515 mm/s (525 mode),

59.575 mm/s (625 mode)

Betacam/Betacam SP: 118.6 mm/s,

101.5 mm/s (625 mode)

Playback time:

Digital Betacam: Max. 124 min. with

BCT-D124L

MPEG IMX: Max. 184 min. (525 mode)/220

min. (625 mode) with BCT-184MXL

Betacam SX: Max. 194 min. with

BCT-194SXLA

Betacam/Betacam SP: Max. 90 min. (525

mode)/108 min. (625 mode) with

BCT-90MLA

Fast forward/rewind:

Digital Betacam: Approx. 5 min. with

BCT-D124L

MPEG IMX: Approx. 5 min. with

BCT-184MXL

Betacam SX: Approx. 5 min. with

BCT-184SXLA

Betacam/Betacam SP: Approx. 5 min. with

BCT-90MLA

Search speed range:

Digital Betacam: ± 21 times normal

playback speed

MPEG IMX: ± 32 times normal playback

speed

Betacam SX: ± 35 times normal playback

speed

Betacam/Betacam SP: ± 18 times (525

mode), ± 20 times (625 mode) normal

playback speed

Servo lock time:

1.5 s or less (from standby on)

Load/unload time:

7 s or less

Input signal

Ext. sync:

BNC (x 1), Frame lock

Output signal

Analog composite:

BNC (x 1), Pin Jack (x 1), 1.0 Vp-p, 75 Ω

S-video output:

Mini DIN 4-pin (x 1), Y: 1.0 Vp-p, C: 0.286

Vp-p burst, 75 Ω

SDI output:

BNC (x 2), SMPTE 259M, 270 Mb/s, 0.8

Vp-p, 75 Ω

i.LINK (DV) output:

6-pin (x 1), IEEE 1394

Time Code output:

BNC (x 1), 1.0 Vp-p, 75 Ω , unbalanced

Monitor output L/R:

Pin Jack (x 2): -10 dBu at 47 k Ω load,

unbalanced, XLR (male x 2): +4 dBm, 600

Ω load, low impedance, balanced

Headphone output:

JM-60 Stereo Phone Jack, $-\infty$ to -12 dBu at

8 Ω load, unbalanced

Remote Control

RS-422A:

D-sub 9-pin (female) (x 1), Sony 9-pin

remote interface

RS-232C:

D-sub 9-pin (male) (x 1)

Wireless:

SIRCS

SONY

HVR-M10E	198
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HVR-M10E HDV VTR

Features

HDV1080i/DVCAM/DV(SP) recording and playback switchable system *50i/60i (PAL/NTSC) *Down Conversion playback compatibilities *Built in 16:9 Widescreen LCD Monitor *2-channel Independent Audio Record Level Control with Audio Meter *Time-Code Support *Range of inputs/outputs *Status check button *Visual Indicators (cassette, charge, PAL/NTSC, format, I-LINK) *External Control *Multi-language operation *Battery operation *Battery level indicator *Compact and noiseless design with no cooling fan. *Can be placed either horizontally or vertically

Supplied Accessories

AC-L15A (AC Adaptor)
Power Cord
RMT-843 (Wireless Remote Controller)
Stand
2x Standard AA (R6) batteries
Cleaning Cassette

Optional Accessories

NP-F970 InfoLITHIUM rechargeable battery pack
NP-F770 InfoLITHIUM rechargeable battery pack
NP-F570 InfoLITHIUM rechargeable battery pack
2NP-F970/B InfoLITHIUM rechargeable battery pack



Specifications

Recording/Playback performance

Recording format:

1080/50i, 1080/60i, 576/50i (PAL),
480/60i (NTSC)

Playout/Down-conversion format:

1080/50i, 1080/60i, 576/50i (PAL),
480/60i (NTSC), 576/50p, 480/60p

Tape speed:

HDV/DV SPMax. 18.812 mm/s
with PHDVM-63DM cassette
DVCAM Max. 28.218 mm/s
with PHDVM-63DM cassette

Playback/Recording time:

HDV/DV SP Max. 63 min with
PHDVM-63DM cassette

Recording time:

DVCAM Max. 41 min with PHDVM-63DM
cassette

Fast forward/Rewind time:

Approx. 2 min 40 s with PHDVM-63DM
cassette

Input/Output connectors/devices

Video input/output:

RCA pin x 2
Video signal: 1 Vp-p, 75 Ω unbalanced,
sync negative

S-video input/output:

Mini-DIN 4-pin x 2
Y: 1 Vp-p, 75 Ω unbalanced, sync negative
C: 0.3 Vp-p (PAL), 0.286 Vp-p (NTSC), 75 Ω
unbalanced

Component video output:

RCA pin x 3
Y: 1 Vp-p (0.3 V, sync negative)
Pr/Pb (Cr/Cb): 700 mVp-p (100%
colour bar), input impedance 75 Ω

i.LINK:

4-pin

Phones:

Stereo minijack (\varnothing 3.5 mm), 8 Ω loading

LANC:

Stereo mini-minijack (\varnothing 2.5 mm)

Audio input:

RCA pin x 2
Input level: max. 4 Vrms, input impedance:
min. 47 k Ω unbalanced

Audio output:

RCA pin x 2
Output level: 2 Vrms (full bit), output
impedance: max. 1 k Ω

LCD monitor:

3.5-inch type, approx. 250,000 pixels
(1120 x 224), hybrid type

General

Mass Approx.:

1.8 kg (3 lb 15 1/2 oz)

Power requirements:

DC 8.4 V (DC IN jack), DC 7.2 V (Battery
jack input)

Power consumption:

HDV 6.5 W (playback mode with LCD
monitor on)
DVCAM/DV5.7 W (playback mode with
LCD monitor on)

Operating temperature:

5 to 40 $^{\circ}$ C (41 to 104 $^{\circ}$ K)

Storage temperature:

-20 to +60 $^{\circ}$ C (-4 to 140 $^{\circ}$ K)

DVCAM VTRs

DSR-2000AP	200
DSR-1800AP	202
DSR-1600AP	204
DSR-1500AP	206
DSR-45AP	208
DSR-25	209
DSR-11	210
DSR-50P	211

DSR-2000AP DVCAM Editing Recorder

Features

*Playback capability of all DV (25 Mb/s) recorded tapes including DV tapes recorded in SP/LP mode and DVCPRO without any mechanical adaptor (SDTI(QSDI) and i.LINK(DV) do not support DVCPRO playback) *Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette *Preread editing capability⁽¹⁾ to perform A/B roll editing⁽²⁾ with two VTRs, audio mix/swap and voice over with no delay between video and audio *Audio cross-fade function * Four-channel audio editing capability *Excellent jog audio quality *VTR-to-VTR editing without external controllers *Wide range of digital slow speed from -1 to +1 times normal speed *DMC (Dynamic Motion Control) *High-speed picture search over a range of 60 times normal speed, in both forward and reverse *Versatile digital interfaces: SDI, SDTI (QSDI), i.LINK (DV)(option), SDTI-CP (MPEG Out)(option) and AES/EBU digital audio *Extensive analog interfaces: composite, component, S-Video and XLR audio *RS-422A remote control interface *Frame accurate editing capability *ClipLink operation *Full tape dubbing with ClipLink Log Data via SDTI (QSDI) and RS-422A interfaces *16:9 aspect ID signal recording *Process control for highly stable video signals *TC and VITC *Channel condition monitoring function *Built-in signal generator * Closed caption function

(*1) Not available through SDTI(QSDI) and i.LINK(DV) interfaces

(*2) MIX and WIPE only

Supplied Accessories

Operating Instructions (1)

AC Power cord (1)

Optional Accessories

DSBK-2020 HD Up-conversion Board

RMM-131 Rack Mount Kit

RCC-G Cables 9-pin/9-pin Cable

CCF-L Cables DV Cables (6-pin to 6-pin)

CCFD-L Cables DV Cables (6-pin to 4-pin)

PDV-N Digital Videocassette Tapes

(Non IC type)

PDV-MEM Digital Videocassette Tapes

(Master Tape)

PDV-ME Digital Videocassette Tapes

PDV-CL Video Head Cleaning Cassette

Tapes (for DVCAM)



Specifications

General

Power requirements:

AC 100 to 240 V, 50/60 Hz

Power consumption:

110 W

Operating temperature:

5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:

-20 °C to 60 °C (-4 °F to 140 °F)

Operating humidity:

Less than 80%

Storage humidity:

Less than 90%

Mass:

18 kg (39 lb 10 oz)

Dimensions:

427 (W) × 175 (H) × 496.5 (D) mm

(16 7/8 × 7 × 19 5/8 inches)

Tape speed:

28.221 mm/s

Recording/Playback time

Standard size: 184 min. with

PDV-184ME/184N/184MEM

Mini size: 40 min. with

PDVM-40ME/40N/40MEM

Fast forward/Rewind time:

Standard size: Less than 3 min. with

PDV-184ME/184N/184MEM

Mini size: Less than 1 min. with

PDVM-40ME/40N/40MEM

Search speed

Shuttle mode: Still to ±60 times normal speed in forward and reverse

Digital slow mode: ±1 times normal speed in forward and reverse

Video Performance

Band width (via analogue component I/O):

Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB

5.75 MHz +0/-3.0 dB (Typical measurement)

Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB

S/N ratio (via analogue component I/O):

More than 55 dB

K-factor (K2T, KPB):

Less than 2.0%

Y/C delay:

Less than 30 ns

Audio Performance

Frequency response:

2CH mode (48 kHz/16-bit): 20 Hz to 20

kHz +0.5/-1.0 dB

4CH mode (32 kHz/12-bit): 20 Hz to 14.5

kHz +0.5/-1.0 dB

Dynamic range:

More than 90 dB

Distortion (THD + N):

Less than 0.05%

Input Signals

Video (Analog)

REF. Video: BNC (2), loop-through connection

Composite, 1.0 Vp-p, 75 Ω, sync negative

Video: BNC (2), loop-through connection

Composite, 1.0 Vp-p, 75 Ω, sync negative

Component: BNC (3)

Y:1.0 Vp-p, 75 Ω, sync negative

R-Y:0.7 Vp-p, 75 Ω (100%)

B-Y:0.7 Vp-p, 75 Ω (100%)

S-Video: DIN 4-pin (1)

Y:1.0 Vp-p, 75 Ω, sync negative

C:0.3 Vp-p, 75 Ω (at burst level)

Video (Digital)

SDI: BNC (2), active-through connection

Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656

SDTI (QSDI): BNC (1)

Conforms to SDTI (270 Mb/s), SMPTE 305M/322M

i.LINK (DV): 6-pin (1) *using optional

DSBK-190 i.LINK/DV Input/Output Board IEEE1394

Audio (Analog)

Audio: XLR 3-pin, female (4)

-6/0/+4 dBu, 600 Ω on/off/-60 dBu, high impedance

Audio (Digital)

AES/EBU: BNC (2), 75 Ω, unbalanced

Time Code:

BNC (1), 0.5 Vp-p to 18 Vp-p, 3 kΩ, unbalanced

Output Signals

Video (Analog)

REF. Vide: BNC (1), 0.3 Vp-p, 75 Ω, sync negative

Video 1/2/3(SUPER): BNC (3)

Composite, 1.0 Vp-p, 75 Ω, sync negative

Component: BNC (3)

Y:1.0 Vp-p, 75 Ω, sync negative

R-Y:0.7 Vp-p, 75 Ω (100%)

B-Y:0.7 Vp-p, 75 Ω (100%)

S-Video: DIN 4-pin (1)

Y:1.0 Vp-p, 75 Ω, sync negative

C:0.3 Vp-p, 75 Ω (at burst level)

Video (Digital)

SDI: BNC (3)

Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656

SDTI (QSDI): BNC (1)

Conforms to SDTI (270 Mb/s), SMPTE 305M/322M

i.LINK (DV): 6-pin (1) *using optional

DSBK-190 i.LINK/DV Input/Output Board IEEE1394

Audio (Analog)

Audio: XLR 3-pin, male (4)

+4/0/-6 dBu (selectable by menu)

Monitor: RCA (1)

-11 dBu, 47 kΩ, unbalanced (-18 dBFS)

Headphone:JM-60 headphone jack (1)

-∞ to -13 dBu, 8 Ω, unbalanced (-18 dBFS)

Audio (Digital)

AES/EBU: BNC (2), 75 Ω, unbalanced

Time Code

BNC: (1), 2.2 Vp-p, 75 Ω, unbalanced

Remote

RS-422A: D-sub 9-pin, female (2)

Video Control: D-sub 15-pin, male (1)

Control Panel: D-sub 15-pin, female (1)

DSR-1800AP DVCAM Editing Recorder

Features

*Superb picture quality of the DVCAM format *Playback capability of DV (25 Mb/s) recorded tapes including DV tapes recorded in SP mode and DVCPRO tapes without a mechanical adaptor(SDTI (QSDI) and i.LINK (DV) interfaces do not support DVCPRO playback.) *Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette *Preread playback capability to perform audio mix/swap and over dubbing without any delay between video and audio signals *Four-channel audio editing capability *Audio cross-fade function *Excellent jog audio capability *DMC (Dynamic Motion Control) *Digital slow speed from -0.5 to +0.5 times normal speed *High-speed picture search over a range of 60 times normal speed, in both forward and reverse *Versatile digital interfaces (The optional boards are required): SDI , SDTI(QSDI) , i.LINK (DV) and AES/EBU digital audio. *Extensive analog interfaces: composite, component, S-Video and XLR audio *RS-422A remote control interface *Frame accurate editing capability *ClipLink operation *Full tape dubbing with ClipLink Log Data *16:9 aspect ID signal recording *Video process control of analog and digital outputs *TC and V ITC *Channel condition monitoring function *Built-in signal generator *Flexible input selection between video and audio(*) *Universal powering system (AC 100 V to 240 V) *Three-size cassette compartment to ensure compatibility with DV(25Mb/s) recorded tapes of all size and types *Closed caption function

(*) i.LINK cannot be combined with other signal interfaces.

Supplied Accessories

AC Power cord (1)
Operating instructions (1)

Optional Accessories

DSBK-1801 SDI, AES/EBU Input/Output Board
DSBK-1820 HD Up-conversion Board
RMM-131 Rack Mount Kit
RCC-G Cables 9-pin/9-pin Cable
CCF-L Cables DV Cables (6-pin to 6-pin)
CCFD-L Cables DV Cables (6-pin to 4-pin)
PDV-CL Video Head Cleaning Cassette Tapes
(for DVCAM)
PDV-MEM Digital Videocassette Tapes
(Master Tape)
PDV-N Digital Videocassette Tapes
(Non IC type)
PDV-ME Digital Videocassette Tapes



Specifications

GENERAL

Power requirements:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

100 W (with all options)

Operating temperature:

5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:

-20 °C to 60 °C (-4 °F to 140 °F)

Operating humidity:

Less than 80%

Storage humidity:

Less than 90%

Weight:

13 kg (28 lb 10 oz)

Dimensions (W x H x D):

427 x 174 x 400 mm (16 7/8 x 6 7/8 x

15 3/4 inches)

Tape speed:

28.221 mm/s

Recording/Playback time

Standard size: 184 min. with

PDV-184ME/184N/184MEM

Mini size: 40 min. with

PDVM-40ME/40N/40MEM

Fast forward/Rewind time

Standard size: Less than 3 min. with

PDV-184ME/184N/184MEM

Mini size: Less than 1 min. with

PDVM-40ME/40N/40MEM

Search speed

Shuttle mode: Still to ± 60 times normal speed

Digital slow mode: ± 0.5 times normal speed

VIDEO PERFORMANCE

Bandwidth (via analog component I/O)

Luminance: 25 Hz to 5.0 MHz ± 1.0 dB

Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB

S/N ratio (via analog component I/O):

More than 55 dB

K-factor (K2T, KPB):

Less than 2%

Y/C delay:

Less than 30 ns

AUDIO PERFORMANCE

Frequency response

2CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB

4CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB

Dynamic range:

More than 90 dB

Distortion (THD + N):

Less than 0.05%

INPUT SIGNALS

VIDEO (ANALOG)

REF. Video :BNC (2), loop-through connection

0.3 Vp-p, 75 Ω , sync negative

Composite Video: BNC (2), loop-through connection

1.0 Vp-p, 75 Ω , sync negative

Component :BNC (3)

Y: 1.0 Vp-p, 75 Ω , sync negative

R-Y: 0.7 Vp-p, 75 Ω (100%)

B-Y: 0.7 Vp-p, 75 Ω (100%)

S-Video: DIN 4-pin (1)

Y: 1.0 Vp-p, 75 Ω , sync negative

C: 0.3 Vp-p, 75 Ω (at burst level)

VIDEO (DIGITAL)

SDI: BNC (2), active-through connection

*using optional DSBK-1801

Conforms to Serial Digital Interface

(270 Mb/s), ITU-R BT.656

SDTI (QSDI): BNC (1) *using optional

DSBK-1802

Conforms to SDTI (270 Mb/s), SMPTE

305M/322M

i.LINK (DV): 6-pin (1) *using optional

DSBK-1803

IEEE 1394

AUDIO (ANALOG)

Audio: XLR 3-pin, female (4)

-6/-3/0/+4 dBu (selectable by menu)

-60 dBu (high impedance)/600 Ω

OFF/ON

AUDIO (DIGITAL)

AES/EBU :BNC (2) *using optional

DSBK-1801

75 Ω , unbalanced

TIME CODE

BNC (1): 0.5 Vp-p to 18 Vp-p, 3 k Ω

unbalanced

OUTPUT SIGNALS

VIDEO (ANALOG)

REF. Video: BNC (1)

0.3 Vp-p, 75 Ω , sync negative

Video 1/2(SUPER): BNC (2)

Composite, 1.0 Vp-p, 75 Ω , sync negative

Component :BNC (3)

Y: 1.0 Vp-p, 75 Ω , sync negative

R-Y: 0.7 Vp-p, 75 Ω (100%)

B-Y: 0.7 Vp-p, 75 Ω (100%)

S-Video: DIN 4-pin (1)

Y: 1.0 Vp-p, 75 Ω , sync negative

C: 0.3 Vp-p, 75 Ω (at burst level)

VIDEO (DIGITAL)

SDI: BNC (2) *using optional DSBK-1801

Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656

SDTI (QSDI) :BNC (1) *using optional

DSBK-1802

Conforms to SDTI (270 Mb/s), SMPTE

305M/322M

i.LINK (DV): 6-pin (1) *using optional

DSBK-1803

IEEE 1394

AUDIO (ANALOG)

Audio : XLR 3-pin,male (4)

-6/-3/0/+4 dBu (selectable by menu)

Monitor: RCA (1)

-9 dBu, 47 k Ω , unbalanced (-18 dBFS)

Headphone: JM-60 headphone jack (1)

$-\infty$ to -11 dBu, 8 Ω , unbalanced (-18 dBFS)

AUDIO (DIGITAL)

AES/EBU: BNC (2) *using optional

DSBK-1801

75 Ω , unbalanced

TIME CODE

BNC(1), 2.2 Vp-p, 75 Ω , unbalanced

REMOTE

RS-422A: D-sub 9-pin, female (1)

Video Control: D-sub 15-pin, male (1)

CONTROL S (SIRCS): Stereo mini jack (1)

DSR-1600AP DVCAM Editing Player

Features

*Superb picture quality of the DVCAM format *Playback capability of DV (25 Mb/s) recorded tapes including DV tapes recorded in SP mode and DVCPRO tapes without a mechanical adaptor (SDTI (QSDI) and i.LINK (DV) interfaces do not support DVCPRO playback) *Excellent jog audio capability *DMC (Dynamic Motion Control) *Wide range of digital slow speed from -0.5 to +0.5 times normal speed *High-speed picture search over a range of 60 times normal speed, in both forward and reverse *Versatile digital interfaces(The optional boards are required) : SDI , SDTI(QSDI) , i.LINK(DV) and AES/EBU digital audio . *Extensive analog interfaces: composite, component, S-Video and XLR audio *RS-422A remote control interface *Frame accurate editing capability *ClipLink operation *Video process control for greater control of both analog and digital outputs *TC and VITC*Channel condition monitoring function *Universal powering system (AC 100 V to 240 V) *Three-size cassette compartment to ensure compatibility with DV(25Mb/s) recorded tapes of all size and types *Closed caption function *Jog dial on front panel



Supplied Accessories

AC power cord (1)
Operating instructions (1)

Optional Accessories

DSBK-1820 HD Up-conversion Board
DSBK-1601 SDI, AES/EBU Output Board
RMM-131 Rack Mount Kit
RCC-G Cables 9-pin/9-pin Cable
CCF-L Cables DV Cables (6-pin to 6-pin)
CCFD-L Cables DV Cables (6-pin to 4-pin)
PDV-N Digital Videocassette Tapes (Non IC type)
PDV-MEM Digital Videocassette Tapes (Master Tape)
PDV-ME Digital Videocassette Tapes
PDV-CL Video Head Cleaning Cassette Tapes (for DVCAM)

Specifications

GENERAL

Power requirements:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

70 W (with all options)

Operating temperature:

5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:

-20 °C to 60 °C (-4 °F to 140 °F)

Operating humidity:

Less than 80%

Storage humidity:

Less than 90%

Weight:

13 kg (28 lb 10 oz)

Dimensions (W x H x D):

427 x 174 x 400 mm (16 7/8 x 6 7/8 x 15 3/4 inches)

Tape speed:

28.221 mm/s

Recording/Playback time

Standard size: 184 min. with

PDV-184ME/184N/184MEM

Mini size: 40 min. with

PDVM-40ME/40N/40MEM

Fast forward/Rewind time

Standard size: Less than 3 min. with

PDV-184ME/184N/184MEM

Mini size: Less than 1 min. with

PDVM-40ME/40N/40MEM

Search speed

Shuttle mode: Still to ± 60 times normal speed

Digital slow mode: ± 0.5 times normal speed

VIDEO PERFORMANCE

Bandwidth (via analog component I/O)

Luminance: 25 Hz to 5.0 MHz ± 1.0 dB

Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB

S/N ratio (via analog component I/O):

More than 55 dB

K-factor (K2T, KPB):

Less than 2%

Y/C delay:

Less than 30 ns

AUDIO PERFORMANCE

Frequency response

2CH mode (48 kHz/16-bit): 20 Hz to

20 kHz +0.5/-1.0 dB

4CH mode (32 kHz/12-bit): 20 Hz to

14.5 kHz +0.5/-1.0 dB

Dynamic range:

More than 90 dB

Distortion (THD + N):

Less than 0.05%

INPUT SIGNALS

VIDEO (ANALOG)

REF. Video: BNC (2), loop-through connection

0.3 Vp-p, 75 Ω , sync negative

OUTPUT SIGNALS

VIDEO (ANALOG)

REF. Video: BNC (1)

0.3 Vp-p, 75 Ω , sync negative

Composite Video 1/2(SUPER): BNC (2)

1.0 Vp-p, 75 Ω , sync negative

Component: BNC (3)

Y: 1.0 Vp-p, 75 Ω , sync negative

R-Y: 0.7 Vp-p, 75 Ω (100%)

B-Y: 0.7 Vp-p, 75 Ω (100%)

S-Video: DIN 4-pin (1)

Y: 1.0 Vp-p, 75 Ω , sync negative

C: 0.3 Vp-p, 75 Ω (at burst level)

VIDEO (DIGITAL)

SDI :BNC(2) *using optional DSBK-1601

Conforms to Serial Digital Interface

(270 Mb/s), ITU-R BT.656

SDTI (QSDI): BNC (1) *using optional

DSBK-1602

Conforms to SDTI (270 Mb/s), SMPTE

305M/322M

i.LINK (DV): 6-pin (1) *using optional

DSBK-1803

IEEE 1394

AUDIO (ANALOG)

Audio: XLR 3-pin, male (4)

-6/-3/0/+4 dBu (selectable by menu)

Monitor: RCA (1)

-9 dBu, 47 k Ω , unbalanced (-18 dBFS)

Headphone: JM-60 headphone jack (1)

$-\infty$ to -11 dBu, 8 Ω , unbalanced

(-18 dBFS)

AUDIO (DIGITAL)

AES/EBU: BNC(2) *using optional

DSBK-1601

75 Ω , unbalanced

TIME CODE:

BNC (1): 2.2 Vp-p, 75 Ω , unbalanced

REMOTE

RS-422A: D-sub 9-pin, female (1)

Video Control: D-sub 15-pin, male (1)

CONTROL S (SIRCS): Stereo mini jack (1)

DSR-1500AP DVCAM Editing Recorder

Features

*Compact, half-rack size *Superb picture quality of the DVCAM format *Playback compatibility with DV (25 Mb/s) family formats including consumer DV (SP mode) and DVCPRO without a mechanical adaptor(*) *DV format recording capability (SP mode, 10- μ m track pitch recording) (**) *Long recording time: max. 184 min (DVCAM mode)/276 min (DV SP mode) with a standard-size cassette, and max. 40 min (DVCAM mode)/60 min (DV SP mode) with a mini cassette

*Versatile digital interfaces: equipped with i.LINK (DV), and optional SDI, SDTI (QSDI) and AES/EBU interfaces

*Extensive range of analog interfaces: composite, component, S-video and two channels of XLR audio

*Variable speed playback within the range of -0.5 to +0.5 times normal play speed *High-speed color picture search: 60 times normal play speed in both forward and reverse *Menu keys on front panel for frame by frame picture search *RS-422A remote control interface

*Excellent jog audio quality *ClipLink operation *Full tape dubbing including ClipLink Log Data using SDTI (QSDI) and RS-422A interfaces *16:9 aspect ID signal recording

*Video process control for both analog and digital outputs

*TC and VITC *Built-in signal generator *Universal powering system: allows the use of AC100 V to 240 V power sources *Three-size cassette compartment to ensure compatibility with DV(25Mb/s) recorded tapes of all size and types *Closed caption function

(*) SDTI (QSDI) interface does not support DVCPRO playback. (**) Assemble or insert editing is not possible.

Supplied Accessories

AC Power cord (1)
Operating instructions (1)

Optional Accessories

DSBK-1501 Digital Input/Output Board
DSBK-1505 Analog Input Board
DSRM-10 Remote Control Unit
RCC-G Cables 9-pin/9-pin Cable
CCF-L Cables DV Cables (6-pin to 6-pin)
CCFD-L Cables DV Cables (6-pin to 4-pin)
PDV-MEM Digital Videocassette Tapes (Master Tape)
PDV-N Digital Videocassette Tapes (Non IC type)
PDV-CL Video Head Cleaning Cassette Tapes (for DVCAM)
PDV-ME Digital Videocassette Tapes



Specifications

General

Power requirements:

AC 100 V to 240 V, 50/60 Hz

Power consumption:

55 W (with all options)

Operating temperature:

5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:

-20 °C to 60 °C (-4 °F to 140 °F)

Operating humidity:

Less than 80%

Storage humidity:

Less than 90%

Mass:

6 kg (13 lb 3 oz)

Dimensions (W x H x D):

210 x 130 x 420 mm (8 3/8 x 5 1/8 x 16 5/8 inches)

Tape speed:

28.221 mm/s

Recording/Playback time

DVCAM mode:

Standard size: 184 min. with

PDV-184ME/184N/184MEM

Mini size: 40 min. with

PDVM-40ME/40N/40MEM

DV (SP) mode:

Standard size: 276 min. with

PDV-184ME/184N/184MEM

Mini size: 60 min. with

PDVM-40ME/40N/40MEM

Fast forward/Rewind time

Standard size: Less than 3 min. with

PDV-184ME/184N/184MEM

Mini size: Less than 1 min. with

PDVM-40ME/40N/40MEM

Search speed

Shuttle mode: Still to ± 60 times normal speed

Digital slow mode: ± 0.5 times normal speed

Video Performance

Bandwidth (via analog component I/O)

Luminance: 25 Hz to 5.0 MHz +1.0/-1.5 dB

Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB

S/N ratio (via analog component I/O):

More than 55 dB

K-factor (K2T, KPb):

Less than 2%

Y/C delay:

Less than 30 ns

Audio Performance

Frequency response

2CH mode (48 kHz/16-bit): 20 Hz to 20 kHz

± 1.0 dB

4CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz

± 1.0 dB

Dynamic range:

More than 87 dB

Distortion (THD + N):

Less than 0.07%

Input Signals

VIDEO (ANALOG)

REF. Video: BNC (2), loop-through connection

0.3 Vp-p, 75 Ω sync negative

Composite Video: BNC (2), loop-through

connection(*1) *Using optional DSBK-1504

1.0 Vp-p, 75 Ω , sync negative

Component: BNC (3) (*1) *Using optional

DSBK-1504

Y: 1.0 Vp-p, 75 Ω , sync negative

R-Y: 0.7 Vp-p, 75 Ω (100%)

B-Y: 0.7 Vp-p, 75 Ω (100%)

S-Video: BNC (2) (*1) *Using optional

DSBK-1504

Y: 1.0 Vp-p, 75 Ω , sync negative

C: 0.3 Vp-p, 75 Ω (at burst level)

VIDEO (DIGITAL)

SDI: BNC (1) (*2) *Using optional DSBK-1501

Conforms to Serial Digital Interface

(270 Mb/s), ITU-R BT.656

SDTI (QSDI): BNC (1) (*2) *using optional

DSBK-1501

Conforms to SDTI (270 Mb/s), SMPTE

305M/322M

i.LINK (DV): 6-pin (1)

IEEE 1394-based

AUDIO (ANALOG)

Audio: XLR 3-pin female (2) *Using optional

DSBK-1504

-6/-3/0/+4 dBu (selectable by menu), high

impedance

AUDIO (DIGITAL)

AES/EBU: BNC (2) *Using optional DSBK-1501

75 Ω , unbalanced

Time Code

BNC (1), 0.5 Vp-p to 18.0 Vp-p, 3 k Ω

unbalanced

Output Signals

VIDEO (ANALOG)

Video 1/2/3(SUPER): BNC (3) (*3)

Composite, 1.0 Vp-p, 75 Ω , sync negative

Component: BNC (3) (*3)

Y: 1.0 Vp-p, 75 Ω , sync negative

R-Y: 0.7 Vp-p, 75 Ω (100%)

B-Y: 0.7 Vp-p, 75 Ω (100%)

S-Video: BNC (2) (*3)

Y: 1.0 Vp-p, 75 Ω , sync negative

C: 0.3 Vp-p, 75 Ω (at burst level)

VIDEO (DIGITAL)

SDI: BNC (2) (*4) *Using optional DSBK-1501

Conforms to Serial Digital Interface

(270 Mb/s), ITU-R BT.656

SDTI (QSDI): BNC (2) (*4) *Using optional

DSBK-1501

Conforms to SDTI (270 Mb/s), SMPTE

305M/322M

i.LINK (DV): 6-pin (1)

IEEE 1394-based

AUDIO (ANALOG)

Audio: XLR 3-pin male (2)

-6/-3/0/+4 dBu (selectable by menu)

Monitor: RCA (1) (*5)

- ∞ to -9 dBu, 47k Ω , unbalanced

(-18 dBFS)

Headphone: JM-60 headphone jack (1)

- ∞ to -11 dBu, 8 Ω , unbalanced (-18 dBFS)

AUDIO (DIGITAL):

BNC (2), AES/EBU, 75 Ω , unbalanced *Using

optional DSBK-1501

TIME CODE:

BNC (1), 2.2 Vp-p, 75 Ω , unbalanced

REMOTE

RS-422A: D-sub 9-pin, female (1)

Control-S (SIRCS): Stereo mini jack (1)

(*1): Video, Component and S-Video inputs share the same BNC connectors. (*2): SDI and SDTI (QSDI) inputs share the same BNC connectors. (*3): Video, Component and S-Video outputs share the same BNC connectors. (*4): SDI and SDTI (QSDI) outputs share the same BNC connectors. (*5): The volume of monitor can be controlled by the PHONE LEVEL control knob.

DSR-45AP DVCAM Recorder

Features

*Superb picture quality of the DVCAM format *Recording and playback capability of the DV format (SP mode only)(*1) *Long recording time: up to 184 minutes with a standard-size cassette, 40 minutes with a mini-size cassette in DVCAM mode *Full range of analog Video IN/OUT: component, composite, S-video *Four channel independent Audio In/OUT with XLR connectors for Audio OUT *i.LINK(DV) interface for simultaneous transfer of audio, video, and command signals *RS-422A remote control interface(*2) *RS-232C interface for basic control from a PC *LANC and Control S interface *Time code IN/OUT *Time code/User bit preset *Time code IN through DV IN *Duplication function (Including the duplication of cassette memory data) *Compact size (half-rack size width, 2U height) *Low power consumption (22 W during playback) *Built-in 2.5-inch type colour LCD monitor *Tape counter *Wireless remote controller RMT-DS5 supplied

(*1) When recording in DV(SP) format, the transition between cut to cut may not be smooth. In addition, when the recording format is switched between DVCAM and DV, the transition may not be recorded smoothly. (*2) The DSR-45/45P is not equipped with the synchronization capability, therefore, is recommended to be used only as a source feeder in A/B roll editing.



Supplied Accessories

Cleaning cassette (1)
RMT-DS5 wireless remote controller (1)
Size AA (R6) battery for remote controller (2)
Operating instructions (1)
Interface manual for programmers (RS-232C) (1)
AC power cord (1)

Optional Accessories

VMC-IL44 cables 4-pin <-> 4-pin i.LINK Cable
VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable
DSRM-10 Remote Control Unit

Specifications

General

System
PAL
Power requirements:
AC 100 V to 240 V, 50/60 Hz
Power consumption:
22 W
Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:
-20 °C to 60 °C (-4 °F to 140 °F)
Mass:
Approx. 4.6 kg (10 lb 2 oz)
Dimensions:
212 (W) × 98 (H) × 392.8 (D) mm
(8 3/8 × 3 7/8 × 15 1/2 inches)
Tape speed
DVCAM mode: 28.2 mm/s
DV SP playback mode: 18.8 mm/s
Recording/Playback time in DVCAM mode:
Standard size: 184 min. with
PDV-184ME/184N/184MEM
Mini size: 40 min. with
PDVM-40ME/40N/40MEM

Tape rewind time:

Less than 2 min. with
PDV-184ME/184N/184MEM

Search speed (via DSRM-20 or RMT-DS5):
± x1/10, x1/3, x1, x2, x11, x17 (DVCAM)
± x1/10, x1/3, x1, x2, x11, x24 (DV SP)

Signal Inputs

Video (Analog)
Ref.Video: BNC (1)
Black burst: 75 Ω, sync negative
Composite: BNC (1)(*1)
1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video: Mini DIN 4-pin (1)
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.3 Vp-p (subcarrier), 75 Ω
Component: BNC (3)
Y: 1.0 Vp-p, 75 Ω, sync negative
R-Y/B-Y: 0.7 Vp-p, 75 Ω (with 100% color bar)

Audio (Analog)

Audio: Pin jack (4)
-10/-2/+4 dBu (full bits -18 dB)

Signal outputs

Video (Analog)
Composite: BNC (1)
1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video: Mini DIN 4-pin (1)
Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
C: 0.3 Vp-p (subcarrier), 75 Ω, unbalanced
Component: BNC (3)
Y: 1.0 Vp-p, 75 Ω, sync negative
R-Y/B-Y: 0.7 Vp-p (with 100% color bar)
Monitor: Pin jack (1)
Composite, 1.0 Vp-p, 75 Ω, sync negative
Audio (Analog)
Audio: XLR 3-pin male (4)
+4 dBu (full bits -20dB)(*2)

Monitor: Pin jack (1)

2 Vrms (maximum)

Digital Input/Output

i.LINK (DV): 4-pin (1), IEEE1394

Others

RS-422A: D-sub 9-pin, female (1)
RS-232C: D-sub 9-pin, male (1)
LANC: Stereo mini-mini jack (1)
Control S (SIRCS) IN: Stereo mini jack (1)
Headphone: Stereo mini jack (1)

(*1) Shared with REF IN (*2) The audio output level of the DSR-45 will be reduced by half when connected to an Unbalanced XLR input device.

DSR-25 DVCAM Recorder

Features

*Superb picture quality of the DVCAM format *Recording and playback capability of DV recorded tapes (SP mode only)(*1) *Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette in DVCAM mode *Recording and playback capability of both NTSC/PAL signals(*2) *i.LINK (DV) interface for simultaneous transfer of audio, video, and command signals *LANC and control S interface *Time code/ User bit preset *Time code IN through DV IN *Duplication function (Including the duplication of cassette memory data) *Power-on recording and playback capabilities *Compact size (half-rack size width, 2U height) *Low power consumption (16 W during playback) *Built-in 2-inch type (123,200 dot) color LCD monitor *Tape counter *Wireless remote controller RMT-DS5 supplied

(*1) When recording in DV (SP) format, the transition between cut to cut may not be smooth. In addition, when the recording format is switched between DVCAM and DV, the transition may not be recorded smoothly. (*2) The DSR-25 is not equipped to convert signals from NTSC to PAL, or vice versa.



Supplied Accessories

Cleaning cassette (1)
RMT-DS5 wireless remote controller (1)
Size AA (R6) battery for remote controller (2)
Operating instructions (1)
AC power cord (1)

Optional Accessories

VMC-IL44 cables 4-pin <-> 4-pin i.LINK
Cable
VMC-IL46 cables 4-pin <-> 6-pin i.LINK
Cable
DSRM-10 Remote Control Unit

Specifications

General

Video signal standard:
NTSC/PAL Switchable
Power requirements:
AC 100 V to 240 V, 50/60 Hz
Power consumption:
16 W
Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:
-20 °C to 60 °C (-4 °F to 140 °F)
Mass:
Approx. 4.3 kg (9 lb 8 oz)
Dimensions:
212 (W) × 98 (H) × 392.8 (D) mm
(8 3/8 × 3 7/8 × 15 1/2 inches)
(Including external projections)
Tape speed:
DVCAM mode: 28.2 mm/s
DV SP playback mode: 18.8 mm/s
Recording/Playback time in DVCAM mode:
Standard size: 184 min. with
PDV-184ME/184N/184MEM
Mini size: 40 min. with
PDVM-40ME/40N/40MEM
Tape rewind time:
Less than 2 min. with
PDV-184ME/184N/184MEM

Search speed (via RMT-DS5 or DSRM-20):

± x 1/10, x 1/3, x 1, x 2, x 9, x 14 (DVCAM
NTSC)
± x1/10, x1/3, x1,x2,x9, x24 (DV SP NTSC)
± x1/10, x1/3, x1,x2,x11, x17 (DVCAM
PAL)
± x1/10, x1/3, x1,x2,x11, x24 (DV SP PAL)

Signal Inputs

Video (ANALOG)
Composite VIDEO: BNC (1)
1.0 Vp-p, 75 Ω, sync negative
S-Video: Mini DIN 4-pin (1)
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.286 Vp-p (NTSC mode)
(subcarrier), 75 Ω
C: 0.3 Vp-p (PAL mode) (subcarrier),
75 Ω
Video (DIGITAL)
i.LINK(DV): 4-pin (1), IEEE1394
Audio (ANALOG)
Pin jack (L/R) (1): -10/-2/+4 dBu (full bits
-20dB)

Signal outputs

Video (ANALOG)
Composite VIDEO: BNC (1)
1.0 Vp-p, 75 Ω, sync negative
S-Video: Mini DIN 4-pin (1)
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.286 Vp-p (NTSC mode)
(subcarrier), 75 Ω
C:0.3 Vp-p (PAL mode) (subcarrier),
75 Ω
Video (DIGITAL)
i.LINK (DV): 4-pin (1), IEEE1394
Audio (ANALOG)
Pin jack (L/R) (1), 2 Vrms (full bits)
OTHERS
LANC: Stereo mini-mini jack (1)
Control S (SIRCS) In: Stereo mini jack (1)
Headphone jack: Stereo mini jack (1)

DSR-11 DVCAM Recorder

Features

*Superb picture quality of the DVCAM format *Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
 *Recording and playback of DV format tapes (SP mode only) *NTSC/PAL compatible*1 *Composite and S Video inputs *i.LINK (DV) interface providing a single cable connection to simultaneously transfer audio, video and command signals *Unique design enables both horizontal and vertical installation *LANC and Control S terminals
 *Auto repeat function *DC power operation *Supplied RMT-DS11 Wireless Remote Commander

*1 The DSR-11 does not convert signals from NTSC to PAL, or vice versa.



Supplied Accessories

AC Adaptor (1)
 Power Cord (1)
 RMT-DS11 Wireless Remote Commander (1)
 Size AA(R6) Batteries for Remote (2)
 Stand (1)
 Cleaning Cassette (1)
 Operation Manual (1)

Optional Accessories

DSRM-10 Remote Control Unit
 CCFD-L Cables DV Cables (6-pin to 4-pin)
 VMC-IL44 cables 4-pin <-> 4-pin i.LINK Cable
 VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable

Specifications

General

System:
 NTSC/PAL switchable
 DC input:
 DC jack type 4 x 1 (12 V)
 Power consumption:
 15 W
 Operating temperature:
 5 to 40 °C (41 to 104 °F)
 Storage temperature:
 -20 to 60 °C (-4 to 140 °F)
 Tape speed:
 28.221 mm/s (DVCAM mode), 18.831 mm/s (DV SP mode)
 Recording/Playback time:
 184 minutes (DVCAM mode),
 270 minutes (DV SP mode) with
 PDV-184ME cassette
 40 minutes (DVCAM mode),
 60 minutes (DV SP mode) with PDVM-40ME
 cassette
 Mass Dimensions Video:
 2.8 kg (6 lb 2 oz)
 180 (W) x 69 (H) x 258.4 (D) mm
 (7 1/8 x 2 3/4 x 10 1/4 inches), excluding
 projections

Video

Rec Mode:
 DVCAM/DV (SP mode only)
 PB Mode:
 DVCAM/DV (SP mode only)

Audio

Rec Mode:
 48 kHz: 16 bit: 2ch/32 kHz:12 bit:
 4ch/automatic (DV IN)
 PB Mode:
 48 kHz: 16 bit: 2ch/32 kHz:12 bit: 4ch/32
 kHz:16 bit: 2ch
 44.1kHz:16 bit: 2ch (automatically selected)

Input/Output connectors

Video IN

Composite: RCA pin
 1.0 Vp-p, 75 Ω , Sync negative
 S Video: 4-pin mini DIN
 Y: 1.0 Vp-p, 75 Ω , Sync negative
 C: 0.286 Vp-p (NTSC) 0.3 Vp-p (PAL)
 (subcarrier burst), 75 Ω

Audio IN:

RCA pin x 2 (L, R)
 Input level: 2 V rms (full bit) Input
 impedance: more than 47 k Ω

Video OUT

Composite: RCA pin
 1.0 Vp-p, 75 Ω , Sync negative
 S Video: 4-pin mini DIN
 Y: 1.0 Vp-p, 75 Ω , Sync negative
 C: 0.286 Vp-p (NTSC) 0.3 Vp-p (PAL)
 (subcarrier burst), 75 Ω

Audio OUT:

RCA pin x 2 (L, R)
 Output level: 2 V rms (full bit) Output
 impedance: less than 10 k Ω

DV IN/OUT:

4-pin
 Control S:
 Stereo mini jack
 LANC:
 Stereo minimini jack

DSR-50P DVCAM Portable Recorder

Features

*Superb picture quality of the DVCAM format *Playback and Recording capability of DV recorded tapes (SP mode only) *Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette *Four-channel independent digital audio recording *2.5-inch (200,000 dot) color LCD monitor *Duplication options (tape copy, tape copy with original time code, or tape copy with cassette memory data) *Compact & lightweight design: 3.9 kg (8 lb 9 oz) without battery and tape *Playback capability of both NTSC and PAL recorded tapes(*) *i.LINK (DV) interface providing a single cable connection to simultaneously transfer audio, video and command signals *26-pin Camera Connector *Analog Component Output *Timecode IN/OUT

(*) The output signal level is not standard and therefore recommended for simple monitoring only, with a monitor of the same color system as the original source.



Supplied Accessories

LCD Protection Cover (1)
Cleaning Cassette (1)

Optional Accessories

BC-M150 Ni-NH & Li-ion Battery Charger
BC-L70 Li-ion Battery Charger
BP-L60S Rechargeable Lithium-ion Battery Pack
DSRM-10 Remote Control Unit
FS-20 Foot switch
VMC-IL46 cables 4-pin <-> 6-pin i.LINK Cable
VMC-IL66 cables 6-pin <-> 6-pin i.LINK Cable
CCF-L Cables DV Cables (6-pin to 6-pin)
CCFD-L Cables DV Cables (6-pin to 4-pin)

Specifications

General

DC input
XLR 4-pin (male), +12 V
Power consumption
15 W
Operating temperature
5 to 40 °C (41 to 104 °F)
Storage temperature
-20 to 60 °C (-4 to 140 °F)
Tape speed
Approx. 28.2 mm/sec (DVCAM mode),
Approx. 18.8 mm/sec (DV SP mode)

Recording/Playback time

184 minutes (DVCAM mode), 270 minutes (DV SP mode) with PDV-184ME cassette
40 minutes (DVCAM mode), 60 minutes (DV SP mode) with PDV-40ME cassette

Mass

3.9 kg (8 lb 9 oz), excluding battery and tape

Dimensions

247 (W) x 92.5 (H) x 311 (D) mm (9 3/4 x 3 3/4 x 12 1/4 inches), excluding projections
279 (W) x 99 (H) x 315 (D) mm (11 x 4 x 12 1/2 inches), including projections

Video Performance

Rec mode

DVCAM/DV (SP mode only)

PB mode

DVCAM/DV (SP mode only)

Audio Performance

Rec mode

48.0 kHz: 16 bit: 2ch / 32.0 kHz: 12 bit:
4ch / automatic (DV IN)

PB mode

48.0 kHz: 16 bit: 2ch / 32.0 kHz: 12 bit:
4ch /
32.0 kHz: 16 bit: 2ch / 44.1 kHz: 16 bit:
2ch (automatically selected)

Input terminals

Video (Analog)

Reference: BNC (1), Black Burst 75 Ω,
Sync negative (use Video IN)
Composite Video: BNC (1), 1.0 Vp-p, 75 Ω,
Sync negative

S-Video: 4-pin mini DIN (1)

Y: 1.0 Vp-p, 75 Ω, Sync negative

C: 0.3 Vp-p (subcarrier burst) 75 Ω

Audio IN (Analog)

Audio: XLR 3-pin, female (4)
(+4 dBu/-20 dBu/-60 dBu), impedance
more than 3 kΩ
with +48 V phantom power supply
(independently switched for each
channel)

Camera IN:

26-pin camera connector (1)

Composite: 1.0 Vp-p, 75 Ω, Sync
negative

Component

Y: 1.0 Vp-p, 75 Ω, Sync negative

B-Y: 0.7 Vp-p, 75 Ω, R-Y: 0.7 Vp-p, 75 Ω

DV:

6-pin (with lock) *shared with DV OUT
connector

Timecode:

BNC (1), 0.5 to 18 Vp-p

Output terminals

Video (Analog)

Video OUT 1 (Monitor): Composite, BNC (1)
1.0 Vp-p, 75 Ω, Sync negative
Superimpose On/Off

Video OUT 2: Composite, BNC (1)

1.0 Vp-p, 75 Ω, Sync negative

S-Video, 4-pin mini DIN (1)

Y: 1.0 Vp-p, 75 Ω, Sync negative

C: 0.3 Vp-p (subcarrier burst) 75 Ω

Component OUT: BNC (3)

Y: 1.0 Vp-p, 75 Ω, Sync negative

B-Y/R-Y: 0.7 Vp-p, 75 Ω

Audio (Analog)

RCA pin: (4), -10 dBu, Standard output
level -18 dB from full bit

RCA pin (Monitor): (1)

DV:

6-pin (with lock) *shared with DV IN
connector

Timecode:

BNC (1), 2.2 Vp-p, 600 ohms / 1.2 Vp-p,
75 Ω

Remote

Control S: Stereo mini jack (1)

Remote: Stereo mini jack (1) (Edge High /
Edge Low / Level High / Level Low) (Tally)

Control: Stereo minimini jack (compatible
with LANC as a player)

Headphone jack (left side): Stereo
standard jack (1)

-19 dBu, with Level Control

Other

Color LCD monitor:

2.5 inch, 200,000 dots

SONY

DVStation 214

DVStation Networked Video Production System

Features

DVStation is video production and library system for DV and DVCAM users.

The central part of the DVStation system is DVStation Server (DVSTATION-CORE). The server provides central storage for AV files and operates a full content management system. DV25 based content is simply ingest and logged into DVStation from either a tape or XDCAM upload. Up to 25 browse users can then concurrently search for and review library clips. Chosen clips can be then opened in a choice of target non-linear editing tools-such as Sony Vegas, Pinnacle Liquid Edition or Apple Final Cut Pro



Supplied Accessories

- Ingest Client License (1)
- Browse Client License (5)
- Ingest User Manual (1)
- Browse User Manual (1)
- Web Administration User Guide (1)

Optional Accessories

- Ingest terminal
- Additional External Storage
- Additional browsing Clients
- Non-Linear Editing Solutions
- DVStation Archive
- Backup Solutions
- Playout Solutions

DSR-DR1000AP 216
NSS-V2 217
NSS-S2 219
BKNS-V202 220
BKNS-V203 220
BKNS-V209 220
BZN-202 221
BZNA-202 221
BZNA-203 221

DSR-DR1000AP Video Disc Recorder

Features

*Hard disc recorder (160 GB) with 3.5-inch large-capacity hard drive *Up to 12 hours of 25 Mb/s DVCAM/DV video and audio recording *Compact and lightweight (210 x 130 x 422 mm/ 8 3/8 x 5 1/8 x 16 5/8 inches, 7.5 kg/ 16 lb 10 oz) *Simultaneous recording and playback capability *Variable speed playback within a wide range of -2 to +2 times normal speed *Smooth jog sound capability for easy designation of editing points. *Clip segment playback for continuous playback of designated video segments *Continuous loop recording allows recording to continue until stopped by operator *Interval recording to produce recordings over extended periods *Pre-alarm recording automatically triggers recording to start when an external alarm signal is detected *VTR-like control panel with Jog/Shuttle dial *Random access to files *Synchronous playback via RS-422A *Versatile interfaces *i.LINK interface (6-pin) with AV/C and SBP2 protocols *High-speed file transfer via i.LINK interface using SBP2 protocol *File transfer of DV video and audio using FTP



Supplied Accessories

AC power cord (1)
RM-LG2 (remote control unit) (1)
Operation manual (1)
Warranty card (1)

Optional Accessories

RCC-G Cables 9-pin/9-pin Cable
CCF-L Cables DV Cables (6-pin to 6-pin)
CCFD-L Cables DV Cables (6-pin to 4-pin)

Specifications

General

Power requirements:
AC 100 V to 240 V, 50/60 Hz
Power consumption:
75 W
Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:
-20 °C to 60 °C (-4 °F to 140 °F)
Operating humidity:
Less than 80%
Storage humidity:
Less than 90%
Mass:
7.5 kg (16 lb 10 oz)
Dimensions (W x H x D):
210 x 130 x 422 mm (8 3/8 x 5 1/8 x 16 5/8 inches, without projection)

Video Performance

Bandwidth (via analogue component I/O)
Luminance: 25 Hz to 5.0 MHz +1.0
Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB
S/N ratio (via analogue component I/O):
More than 54 dB
K-factor (K2T, KPB):
Less than 2%
Y/C delay:
Less than 30 ns

Audio Performance

Frequency response
2CH mode (48 kHz/16-bit): 20 Hz to 20 kHz
±1.0 dB
4CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz
±1.0 dB
Dynamic range:
More than 87 dB
Distortion (THD + N):
Less than 0.07% (48 kHz)

Input Signals

VIDEO (ANALOGUE)
REF. Video: BNC (2)
0.3 Vp-p, 75 Ω sync negative
Composite Video: BNC (2), loop-through connector (*1)
1.0 Vp-p, 75 Ω, sync negative
Component: BNC (3) (*1)
Y: 1.0 Vp-p, 75 Ω, sync negative
R-Y, B-Y: 0.7 Vp-p, 75 Ω (100% colour bar)
S-Video: BNC (2) (*1)
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.3 Vp-p, 75 Ω (at burst level)

VIDEO (DIGITAL)

SDI: BNC (1)
Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
i.LINK (DV): 6-pin (1)
IEEE 1394-based

AUDIO (ANALOGUE)

Audio: XLR 3-pin female (2)
-6/-3/0/+4 dBu (selectable by menu), high impedance

AUDIO (DIGITAL)

AES/EBU: BNC (2)
75 Ω, unbalanced

Time Code

BNC (1), 0.5 Vp-p to 18.0 Vp-p, 3 kΩ unbalanced

Output Signals

VIDEO (ANALOGUE)

Video 1/2 (SUPER): BNC (2) (*2)
Composite, 1.0 Vp-p, 75 Ω, sync negative
Component: BNC (3) (*2)
Y: 1.0 Vp-p, 75 Ω, sync negative
R-Y, B-Y: 0.7 Vp-p, 75 Ω (100% colour bar)
S-Video: BNC (2) (*2)
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.3 Vp-p, 75 Ω (at burst level)

VIDEO (DIGITAL)

SDI: BNC (2)
Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
i.LINK (DV): 6-pin (1)
IEEE 1394-based

AUDIO (ANALOGUE)

Audio: XLR 3-pin male (2)
-6/-3/0/+4 dBu (selectable by menu)
Monitor: RCA (1)
∞ to -9 dBu, 47 kΩ, unbalanced
(-18 dBFS), volume center
Headphone: JM-60 headphone jack (1)
∞ to -11 dBu, 8 Ω, unbalanced (-18 dBFS)

AUDIO (DIGITAL)

AES/EBU: BNC (2), 75 Ω, unbalanced
TIME CODE:
BNC (1), 2.2 Vp-p, 600 Ω, unbalanced

REMOTE

RS-422A: D-sub 9-pin, female (2)
Control: Mini jack (1)

Network

Ethernet (1): 10Base-T/100Base-TX Ethernet,
RJ-45 modular jack

(*1) Composite, Component and S-Video inputs share the same BNC connectors. (*2) Composite, Component and S-Video outputs share the same BNC connectors.

NSS-V2 Multi Format Media Server

MediaVenue

MediaVenue is a multi-format video server that combines MXF-based file storage and broad interoperability to offer cost-effective management and distribution of SD and HD content. Serving as the foundation of an end-to-end digital production system, MediaVenue provides interoperability across many commonly used formats and compression standards.

Features

*Native MXF (Material eXchange Format) file architecture for flexible network based exchange with a variety of MXF-compatible devices including Sony XDCAM, e-VTR, etc. *Support for MXF metadata, including UMID, essence marks etc. *High-quality video compression conforming to 422P@ML Long GOP or MPEG IMX for SD encoding, and MP@HL Long GOP for HD encoding. *A combined total of six record and playback processor boards can be installed in each NSS-V2 chassis. *JOG/VARI/SHUTTLE control of AV files from an external control unit via the optional BKNS-V209 control interface board. *Network file transfers of MXF files using the Transfer Manager software. *Hot-swappable Input / Output option boards (BKNS-V202, BKNS-V203). *Hot-swappable redundant power supply

Supplied Accessories

Plug holder (2)
Rack mount ornamental washer (4)
Rack mount screw (RK516) (4)
Operation Manual
Installation Manual
File manager software (CD-ROM)

Optional Accessories

BKNS-V202 Digital Input Processor Board
BKNS-V203 Digital Output Processor Board
BZNA-202 HD Encoder Upgrade Kit
BZNA-203 HD Decoder Upgrade Kit
BKNS-V209 9-pin Control Interface Board
BZN-202 Transfer Manager Software
RMM-10 Rack Mount Kit
Maintenance Manual
AC power cord



Specifications

General

Power requirements
100 to 240 V AC, 50/60 Hz
Power consumption
100 V, 3.0 A
240 V, 1.3 A
Operating temperature
5°C to 40°C (41°F to 104°F)
Storage temperature
-20°C to +60°C (-4°F to +140°F)
Operating humidity
20% to 90% (no condensation)
Mass Approx.
21 kg (46.3 lb. 677.8 oz.)
(with no option board installed)
Dimensions
440x176x457.3 mm (W/H/D)

Performance

SD digital video

Standard
SMPTE 259M
525/59.94i
512 lines (MPEG-2 4:2:2)
625/50i
608 lines (MPEG-2 4:2:2)
Sampling frequency
Y: 13.5 MHz
R-Y, B-Y: 6.75 MHz
Quantization
10 bits
Compression format
MPEG-2 4:2:2
Long GOP 8, 12, 15, 24 Mbps
MPEG-2 4:2:2
Intra GOP (D10) 30, 50 Mbps
Encoding samples
Y: 720 samples/line
R-Y, B-Y: 360 samples/line
Processor adjustable range
System phase 0±1 H
Video level -∞ to +3 dB (playback)
Chrominance level -∞ to +3 dB (playback)
Chrominance phase ±30° (playback)
Black level ±210 mV (in playback)

HD digital video

Standard
SMPTE 292M
1125/59.94i: 1080 lines
1125/50i: 1080 lines
Sampling frequency
Y: 74.25/1.001 MHz (1125/59.94i)
R-Y, B-Y: 37.125/1.001 MHz (1125/59.94i)
Y: 74.25 MHz (1125/50i)
R-Y, B-Y: 37.125 MHz (1125/50i)
Quantization
10 bits
Compression format
MPEG-2 4:2:0
Long GOP 30, 40, 50 Mbps
Encoding samples
Y: 1920 samples/line
R-Y, B-Y: 960 samples/line
Processor adjustable range
System phase 0±1H
Video level -∞ to +3 dB (playback)
Chrominance level -∞ to +3 dB (playback)
Setup level ±30 IRE (playback)

Digital audio

Standard
SMPTE-272M (SD), 299M (HD)
Sampling frequency
48 kHz (in synchronization with video)
Quantization
Linear PCM 16, 20 (playback), 24 bits
Input/output channel
2/4/8 channels
Processor adjustable range
Audio output level
-8 to +12 dB (playback)

Controls

Sony Disk Protocol, Sony VTR Protocol, VDCP

Input/output

REF VIDEO
Reference video input (Analogue)
BNC type (input x1, loop through output (with built-in termination switch) x1)
Black burst signal Sync 0.3 Vp-p,
Burst 0.3 Vp-p, 75Ω (SD)
HD tri-level reference
Sync 0.6 Vp-p, 75Ω (HD)
TC IN
Timecode input
BNC type (1)
0.5 to 18.0 Vp-p, 10 kΩ, unbalanced
SMPTE-12M compliant
FC
FIBER CHANNEL connector
LC connector
Conforms to ANSI fibre channel standards (2 Gbits/s)
100BASE-TX Ethernet connectors
RJ-45 modular jacks (5)
100BASE-TX
Conform to Ethernet IEEE802.3u
Balanced input

With BKNS-V202 installed

SDI IN
Serial video/audio input
BNC type (1) x1 port
SMPTE 259M/ITU-R656 (270 Mbits/s)

TC IN

Timecode input
BNC type (1)
0.5 to 18.0 Vp-p, 10 kΩ, unbalanced

REMOTE

RS-422A connector
D-sub 9-pin, female (1) x1 port

With BKNS-V202/BZNA-202 installed

HD SDI IN
Serial video/audio input
BNC type (1) x1 port
SMPTE 292M/ITU-R656
(1.485/1.001 Gbits/s: 1080/59.94i)
(1.485 Gbits/s: 1080/50i)
TC IN
Timecode input
BNC type (1)
0.5 to 18.0 Vp-p, 10 kΩ, unbalanced
REMOTE
RS-422A connector
D-sub 9-pin, female (1) x1 port

With BKNS-V203 installed

SDI OUT
Serial video/audio outputs
BNC type (1) x2 ports
SMPTE 259M/ITU-R656 (270 Mbits/s)
REMOTE
RS-422A connector
D-sub 9-pin, female (1) x1 port

With BKNS-V203/BZNA-203 installed

HD SDI OUT
Serial video/audio outputs
BNC type (1) x2 ports
SMPTE 292M/ITU-R656
(1.485/1.001 Gbits/s: 1080/59.94i)
(1.485 Gbits/s: 1080/50i)
REMOTE
RS-422A connector
D-sub 9-pin, female (1) x1 port

With BKNS-V209 installed

REMOTE
RS-422A connector
D-sub 9-pin, female (1) x2 ports

NSS-S2 Media Storage Unit

MediaVenue

The NSS-S2 is a storage device for use with a Multi-Format Media Server NSS-V2. Using a RAID of built-in HDDs (Hard Disk Drives), the NSS-S2 stores video and audio data sent from the server or the network.

Features

*Unique hardware error correction engine for high reliability. *Maintenance can be performed both from the LCD display inside the front panel, and also remotely via the network (SNMP compatible) *Hot swappable dual fan and power supply units. *The unit has a spare HDD supplied as standard, to allow for quick recovery of data following a HDD crash using the auto-rebuild function. *2.5TB of usable storage capacity.

Supplied Accessories

Installation Manual (1)
Operation Manual (1)
Plug Holder (2)
Screws and Washers (1 set)

Optional Accessories

RMM-10 Rack mount kit
AC power cord

Specifications

General

Power requirements
AC 100 to 240 V, 50/60 Hz
Current consumption
100 V, 5.0A
240 V, 2.0A
Operating temperature
5°C to 40°C (41°F to 104°F)
Storage temperature
-20°C to +60°C (-4°F to +140°F)
Operating humidity
20% to 90% (no condensation)
Mass Approx.
32 kg (121 lb 4 oz)
Dimensions
440x131x585 mm (W/H/D)
not including projecting parts

Characteristics

Array Composition

Data drives
10 drives
Data correction drives
4 drives
Spare drives
1 drive

Record Capacity

Capacity per HDD x10 drives
When using 250 GB*
HDDs:
250 GB x10 drives = 2.5 TB
(where 1 TB = 1,000 GB)

CPU Memory
256 MB (DIMM)
Cache Memory
256 MB (SO DIMM)
Host Interface
2 Gbps FIBRE CHANNEL,
LC connectors (2)
FIBRE CHANNEL ANSI T11 compliant
Topology
Fabric, FC-AL
FC-4 Layer
SCSI-FCP
FC-0 Layer
SFP
ETHER
Ethernet connector, for maintenance
(Setup and firmware upgrade and
Log acquisition possible)
100BASE-TX, RJ-45 modular jack (1)
Conforms to Ethernet IEEE802.3

*Includes a system sector for recording system information. The actual capacity available for data recording is 250 GB minus the system sector.



BKNS-V202 Digital Input Processor Board

Features

*SD Encoding in either Long GOP MPEG-2 (422P@ML) or MPEG IMX (D10). *HD Encoding in Long GOP MPEG-2 (MP@HL) when the optional BZNA-202 HD Encoding option is installed. *9-pin control interface for connection to automation.

Applicable Models

NSS-V2 Multi Format Media Server



BKNS-V203 Digital Output Processor Board

Features

*Decoding of SD Long GOP MPEG-2 (422P@ML) and MPEG IMX (D10). *Decoding of HD Long GOP MPEG-2 (MP@HL) when the optional BZNA-203 HD Decoding option is installed. *9-pin control interface for connection to automation.

Applicable Models

NSS-V2 Multi Format Media Server



BKNS-V209 9-pin Control Interface Board

Features

*Allows additional control connection for external devices such as Jog/Shuttle controllers. *The BKNS-V209 remote control connector is locked to a particular BKNS-V203 port at set-up for dual control.

Applicable Models

NSS-V2 Multi Format Media Server



BZN-202 Transfer Manager Software

Features

*Provides an FTP interface to allow the exchange of material between the MediaVenue server and other devices on the network. *The software is installed on an external Linux PC.

Applicable Models

NSS-V2 Multi Format Media Server
NSS-S2 Media Storage Unit

BZNA-202 HD Encoding Option Software

Features

*Enables the encoding of HD Long GOP MPEG-2 (MP@HL) material on the BKNS-V202 Digital Input Processor Board.

Applicable Models

BKNS-V202 Digital Input Processor Board

BZNA-203 HD Decoding Option Software

Features

*Enables the decoding of HD Long GOP MPEG-2 (MP@HL) material on the BKNS-V203 Digital Output Processor Board.

Applicable Models

BKNS-V203 Digital Output Processor Board

SONY

VTR Accessories/Peripherals

BKDW-101	224
BKMW-101	224
BKMW-102	224
BKMW-103	225
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DSBK-1820	228
DSBK-2020	228
DSRM-10	228
HKDW-101	229
HKDW-102	229
RM-280	230
RMM-131	230

BKDW-101 Remote Control Panel

Remote control panel for DVW-2000 Series Digital Betacam recorders

Applicable Models

DVW-2000 Digital Betacam Recorder
DVW-2000P Digital Betacam Recorder
DVW-M2000 Digital Betacam Recorder
DVW-M2000P Digital Betacam Recorder



BKMW-101 Remote Control Panel

Remote control panel for MSW-2000/1 series MPEG IMX VTRs

Applicable Models

MSW-2000 MPEG IMX Recorder
MSW-A2000 MPEG IMX Recorder
MSW-A2000P MPEG IMX Recorder
MSW-M2000 MPEG IMX Recorder
MSW-M2000P MPEG IMX Recorder
MSW-M2100 MPEG IMX Player
MSW-M2100P MPEG IMX Player

(all versions including /1)

Optional Accessories

BKMW-102 Remote Control Unit
BKMW-103 Control Panel Extension Kit



BKMW-102 Control Panel Case

Control panel case for BKDW-101, BKMW-101 and HKDW-101

Applicable Models

BKDW-101 Remote Control Panel
BKMW-101 Remote Control Panel
DVW-2000 Digital Betacam Recorder
DVW-2000P Digital Betacam Recorder
DVW-M2000 Digital Betacam Recorder
DVW-M2000P Digital Betacam Recorder
HDW-2000 HDCAM VTR*
HDW-M2000 HDCAM VTR*
HDW-M2000P HDCAM VTR*
HDW-D2000 HDCAM VTR*
HDW-M2100 HDCAM Player*
HDW-M2100P HDCAM Player*
HKDW-101 Remote Control Panel

MSW-2000 MPEG IMX Recorder**
MSW-A2000 MPEG IMX Recorder**
MSW-A2000P MPEG IMX Recorder**
MSW-M2000 MPEG IMX Recorder**
MSW-M2000P MPEG IMX Recorder**
MSW-M2100 MPEG IMX Player**
MSW-M2100P MPEG IMX Player**

*all versions including /20

**all versions including /1



BKMW-103 Control Panel Extension Kit

Control panel extension kit for MSW-2000 series,
DVW-2000 series and HDW-2000 series VTRs

Applicable Models

BKDW-101 Remote Control Panel
BKMW-101 Remote Control Panel
DVW-2000 Digital Betacam Recorder
DVW-2000P Digital Betacam Recorder
DVW-M2000 Digital Betacam Recorder
DVW-M2000P Digital Betacam Recorder
HDW-2000 HDCAM VTR*
HDW-M2000 HDCAM VTR*
HDW-M2000P HDCAM VTR*
HDW-D2000 HDCAM VTR*
HDW-M2100 HDCAM Player*
HDW-M2100P HDCAM Player*
HKDW-101 Remote Control Panel
MSW-2000 MPEG IMX Recorder**
MSW-A2000 MPEG IMX Recorder**
MSW-A2000P MPEG IMX Recorder**
MSW-M2000 MPEG IMX Recorder**
MSW-M2000P MPEG IMX Recorder**
MSW-M2100 MPEG IMX Player**
MSW-M2100P MPEG IMX Player**

*all versions including /20

**all versions including /1



BKMW-104 HD Up-converter Board (*1)

Features

*Allows 1080/59.94i, 1080/50i and 720/59.94p output from
the playback signals of SD 1/2-inch formats^(*), including
Betacam, Betacam SP, Betacam SX and Digital Betacam
as well as MPEG IMX format *Outputs HD 1125 tri-level
sync signal as reference signal

(*1) Either this board or BKMW-E3000 board can be installed in an
MSW-2000 series VTR. (*2) Only from the playback-compatible format of the
VTR used.

Applicable Models

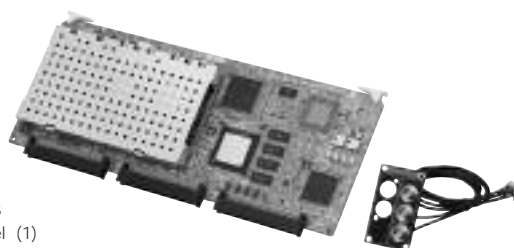
DVW-2000 Digital Betacam Recorder
DVW-2000P Digital Betacam Recorder
DVW-M2000 Digital Betacam Recorder
DVW-M2000P Digital Betacam Recorder
MSW-2000 MPEG IMX Recorder**
MSW-A2000 MPEG IMX Recorder**
MSW-A2000P MPEG IMX Recorder**
MSW-M2000 MPEG IMX Recorder**
MSW-M2000P MPEG IMX Recorder**
MSW-M2100 MPEG IMX Player**
MSW-M2100P MPEG IMX Player**

*all versions including /20

**all versions including /1

Supplied Accessories

SDI/HD-SDI connector panel (1)
SDI INPUT connector masking blank seal
(for player) (1)
VIDEO CONTROL (HD/SD) seal (1)
Attachment screws (6)
Operation and installation guide (1)
Installation manual (1)

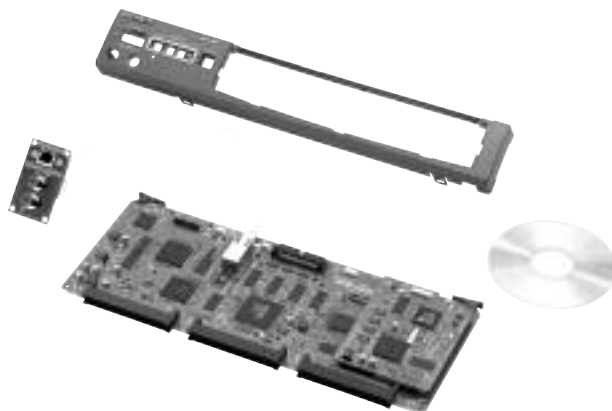


BKMW-E3000 Network Interface Board (option for e-VTR)(*1)

Features

*Adds a Gigabit Ethernet interface to an MSW-2000 series VTR to send and receive AV data as MXF(*2) files across a standard IT network *Allows MXF file output from all 1/2-inch SD format tapes including Digital Betacam, Betacam SX, Betacam SP, Betacam as well as MPEG IMX (*3) *Receives MXF files and records AV signals and metadata that are wrapped in MXF files onto an MPEG IMX cassette *Supports industry-standard network interfaces and protocols including Giga-bit/100Base-TX/10-Base Ethernet, TCP/IP, FTP, HTTP and SNMP *Simple control of file exchange from a PC using supplied e-VTR Manager software *Control of e-VTR tape transport from a PC *Content browsing function allows operators to view any material loaded in any e-VTR on the network as low-rate data *Remote monitoring of e-VTR status through a network *Remote maintenance using SNMP protocol through a network

(*1) Either this board or BKMW-104 can be installed into an MSW-2000 series VTR (*2)MXF: Material eXchange Format (*3) Playback-compatible format depends on the VTR used.



Applicable Models

MSW-2000 MPEG IMX Recorder
MSW-A2000 MPEG IMX Recorder
MSW-A2000P MPEG IMX Recorder
MSW-M2000 MPEG IMX Recorder
MSW-M2000P MPEG IMX Recorder
MSW-M2100 MPEG IMX Player
MSW-M2100P MPEG IMX Player

(all versions including /1)

Supplied Accessories

CD-ROM including e-VTR application software (1)
Connector panel with RJ-45 connector (1)
Upper front panel for e-VTR operation (1)

Specifications

General

Power requirements:
+2.5V DC: 3.0A, +3.4V DC: 3.3A, +6.0V DC: 1.0A
(supplied from MSW-2000 Series VTR)
Operating temperature:
+5 to +40°C (+41 to +104° F)
Storage temperature:
-20 to +60° C (-4 to +140° F)
Operating humidity:
25 to 80% (no condensation)

Dimensions

Board (W x H):
355 x 146 mm (14 2/5 x 5 4/5 inches)
Front panel (W x H x D):
430 x 70 x 45 mm (17 2/5 x 2 4/5 x 1 4/5 inches)
Connector panel (W x H):
72 x 42 mm (2 4/5 x 1 3/5 inches)

Mass

Board:
Approx. 380 g (13.4 oz)
Front panel:
Approx. 130 g (4.6 oz)
Connector panel:
Approx. 50 g (1.8 oz)

Interface:

Network Interface, RJ-45, 1000Base-T (GbE), 100Base-TX, 10Base-T

System Requirements for the Supplied e-VTR Application Software

CPU:
1 GHz or higher
Memory:
256MB or higher
Operating System:
Windows XP/2000
Direct X:
8.11b or higher
Available hard disc space:
5 Mb or more
Monitor resolution:
XGA (1024 x 768) or more recommended

DSBK-1501 Digital Input/Output Board

Features

*Allows Input/Output of SDI, SDTI(QSDI), AES/EBU

Applicable Models

DSR-1500AP DVCAM Editing Recorder

Specifications

Input

SDI/SDTI:

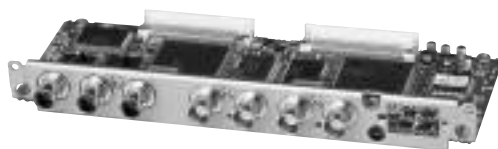
BNC (1), AES/EBU: BNC (2)

Output

SDI/SDTI:

BNC (2)*, AES/EBU: BNC (2)

* SDI and SDTI(QSDI) outputs share the same BNC connectors



DSBK-1505 Analog Input Board

Features

*A range of analog interfaces including composite, component, S-Video(Y/C) and two channel analog audio are provided.

Applicable Models

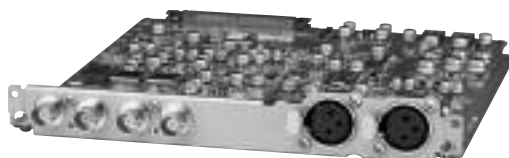
DSR-1500AP DVCAM Editing Recorder

Specifications

Input connectors

BNC (3)

Composite, Component and S-Video share the same BNC connectors.



DSBK-1601 SDI, AES/EBU Output Board

Features

Allows output of SDI (BNC x 2) and AES/EBU (BNC x 2)

Applicable Models

DSR-1600AP Editing Player



DSBK-1801 SDI, AES/EBU Input/Output Board

Features

Allows Input/Output of SDI and AES/EBU

Applicable Models

DSR-1800AP Editing Recorder

Specifications

Input

SDI: BNC (2)

AES/EBU: BNC (2)

Output

SDI: BNC (2)

AES/EBU: BNC(2)



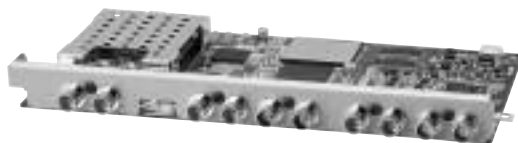
DSBK-1820 HD Up-converter board

Features

*Enables conversion to 1080i through HD-SDI Output as well as SDI Input/Output and AES/EBU

Applicable Models

DSR-1600AP Editing Player
DSR-1800AP Editing Recorder



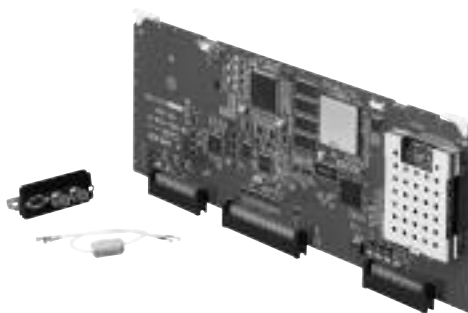
DSBK-2020 HD Up-converter board

Features

*Enables conversion to 1080i through HD-SDI Output

Applicable Models

DSR-2000AP Editing Recorder



DSRM-10 Remote Control Unit

Features

*Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD *JOG/SHUTTLE operation *Enables ± 16 times normal speed in search operation



Applicable Models

DSR-11 Recorder
DSR-25 Recorder
DSR-45AP Recorder
DSR-1500AP Editing Recorder
DSR-50P Portable Recorder

Supplied Accessories

Operating manual (1)

Specifications

Power requirements:
DC 5 V (supplied from the connected VTR)
Power consumption:
50 mW
Remote control:
Stereo mini-plug (with attached cable, length 3 m (10 ft))
Dimensions:
90 (W) \times 46 (H) \times 182 (D) mm
(3 5/8 \times 1 13/16 \times 7 1/4 inches)
Mass:
Approx. 360 g (12 oz)

HKDW-101 Remote Control Panel

Remote control panel for HDW-2000 series VTRs

Applicable Models

HDW-2000 HDCAM VTR
HDW-M2000 HDCAM VTR
HDW-M2000P HDCAM VTR
HDW-D2000 HDCAM VTR
HDW-M2100 HDCAM Player
HDW-M2100P HDCAM Player
(all versions including /20)



HKDW-102 SDTI (HDCAM) Interface Board

Features

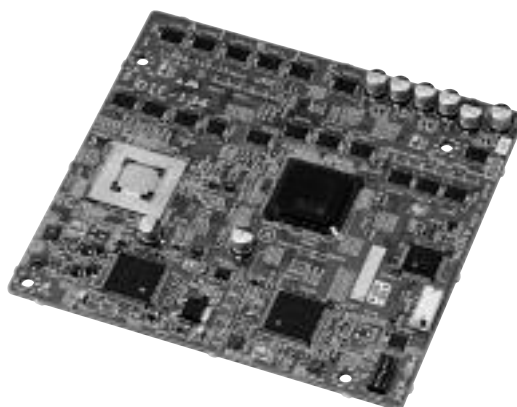
*Adds SDTI (HDCAM) input and output capabilities to an HDW-2000 series VTR

Applicable Models

HDW-2000 HDCAM VTR
HDW-M2000 HDCAM VTR
HDW-M2000P HDCAM VTR
HDW-D2000 HDCAM VTR
HDW-M2100 HDCAM Player
HDW-M2100P HDCAM Player
(all versions including /20)

Supplied Accessories

SDTI (HDCAM) label (1)
Spacer (5 mm (7/32 inch)) (4)
Spacer (10 mm (13/32 inch)) (4)
Fitting screw (8)
Cable clamp (1)
Operation and installation guide (1)
Installation manual (1)



RM-280 Editing Controller

The RM-280 is a compact editing controller intended for simple VTR remote control or basic two-machine editing

Features

- *Two-machine editing
- *Assemble and insert mode
- *Four-channel audio editing
- *A variety of edit buttons such as "IN- and OUT-POINT ENTRY", "+ and - TRIM", "AUTO EDIT", "PREVIEW/REVIEW", "GO TO", "ALL STOP"
- *TC/CTL/RTC (Relative Time Code) editing mode selectable
- *Pinch-on-delay time learning capability for accurate timing adjustments of recorder and player edit in-point
- *Edit delay time setting
- *Cue signal or tally output via a mini-pin port
- *Equipped with reference video input for synchronization with other equipment
- *VTR remote control function; PLAY, REWIND, FAST-FORWARD, REC, STOP, PAUSE, EDIT, PREROLL
- *Multiple system frequencies including 29.97, 25, 24, 23.98 Hz
- *Picture search using the jog/shuttle dial for jog, shuttle and variable-speed playback modes
- *Can be powered using the supplied AC adaptor or directly from a connected HDW-S280 HDCAM recorder from its DC output
- *Easy-to-use keyboard layout provides straightforward operations
- *Displays error messages on the VFD display, indicating the type of errors and device name on which the malfunction occurred for instant action to be taken
- *The RM-280 supports 2 field mode editing only. It does not support CF (Colour Frame) editing



Applicable Models

HDW-S280 HDCAM Compact Recorder
 DVW-2000 series Digital Betacam VTRs
 HDW-2000 series HDCAM VTRs*
 MSW-2000 series MPEG IMX VTRs**
 PDW-1500 XDCAM Deck
 DSR-45AP DVCAM Recorder
 DSR-1500AP DVCAM Editing Recorder
 DSR-1600AP DVCAM Editing Player
 DSR-1800AP DVCAM Editing Recorder
 DSR-2000AP DVCAM Editing Recorder
 DSR-DR1000AP DVCAM Disk Recorder

Supplied Accessories

Operation manual (1)
 9-pin/DC multi-cable (1)
 AC adaptor (1)
 Template (1)

Specifications

Power Requirements
 DC 11 - 17 V
 Power Consumption
 5 W
 Mass
 600 g (1 lb 5 oz)

Dimensions (w x h x d)

210 x 52 x 161 mm
 (8 1/8 x 2 1/8 x 6 3/8 inches)
 Operating Temperature
 +5 to +40°C (+41 to +104°F)
 Storage Temperature
 -20 to +60°C (-4 to +140°F)
 Connectors
 RS-422A 9-pin remote x2
 Reference video input (BNC) x1
 RS-232C x1
 Mini-jack for REC TALLY or cue signal output x1
 DC input x1

RMM-131 Rack Mount Kit

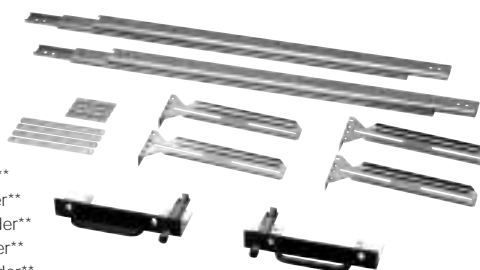
Rack mount kit for HDW-2000/MSW-2000/Betacam SP/DVCAM series VTRs

Applicable Models

DSR-1600AP Editing Player
 DSR-1800AP Editing Recorder
 DSR-2000AP Editing Recorder
 DVW-2000 Digital Betacam Recorder
 DVW-2000P Digital Betacam Recorder
 DVW-M2000 Digital Betacam Recorder
 DVW-M2000P Digital Betacam Recorder
 HDW-2000 HDCAM VTR*
 HDW-M2000 HDCAM VTR*
 HDW-M2000P HDCAM VTR*
 HDW-D2000 HDCAM VTR*
 HDW-M2100 HDCAM Player*
 HDW-M2100P HDCAM Player*

MSW-2000 MPEG IMX Recorder**
 MSW-A2000 MPEG IMX Recorder**
 MSW-A2000P MPEG IMX Recorder**
 MSW-M2000 MPEG IMX Recorder**
 MSW-M2000P MPEG IMX Recorder**
 MSW-M2100 MPEG IMX Player**
 MSW-M2100P MPEG IMX Player**

*all versions including /20
 **all versions including /1



Digital Video Switchers & Accessories

MVS-8000A	232	MKS-8019A	256
MVS-8000ASF	234	MKS-8020A	257
DVS-9000	236	MKS-8024A	258
DVS-9000SF	238	MKS-8025MS	258
BKDS-9160	240	MKS-8026A	259
BKDS-9161	240	MKS-8027A	259
BKDS-9162	240	MKS-8028A	260
BKDS-9210	240	MKS-8030A	260
BKDS-9470	241	MKS-8031AJS	261
BZS-9471	241	MKS-8031ATB	261
MKS-8110M	241	MKS-8032A	262
MKS-8110SD	242	MKS-8033A	262
MKS-8111M	242	MKS-8034ADK	263
MKS-8111SD	242	MKS-8034AFB	263
MKS-8160A	242	MKS-8035A	264
MKS-8161M	243	MKS-8040A	264
MKS-8162A	243	MKS-8041A	265
MKS-8170M	243	MKS-8075	265
MKS-8210A	243	MKS-8076	266
MKS-8440A	243	MKS-8080	266
BZS-8250	244	MKS-8082	267
BZS-9250	244	MKS-9011A	268
BZPS-8000	245	MKS-9012A	269
BZPS-8001	246	SWC-5002	270
HK-PSU04	246	SWC-5005	270
MVE-8000A	247	SWC-5010	270
HK-PSU02	248	MKS-2050	271
MKE-8020A	248	MKS-8050	271
MKE-8021A	248	BZS-8050	271
MKE-8040A	248	MFS-2000	272
MVE-9000	249	HK-PSU11	273
MKE-9020M	250	MKS-2010	274
MKE-9021M	250	MKS-2015	275
MKE-9040M	250	MKS-2017	276
BZDM-9050	251	MKS-2110M	277
MKS-8700	251	MKS-2420M	277
MKS-8701	252	MKS-2440	277
MKS-8702	252	MKS-2470	277
MKS-2700	252	BZS-2000M	278
MKS-8010A	253	BZS-2470M	278
MKS-8011A	253	BZS-2440M	278
MKS-8013A	254	AWS-G500	279
MKS-8014A	254	BKAW-550	280
MKS-8015A	255	BKAW-570	280
MKS-8017A	255		
MKS-8018A	256		

MVS-8000A Multi-Format Switcher Processor

The MVS-8000A is a multi-format switcher processor with a compact frame size only 8 RU high. The MVS-8000A offers a variety of option boards for flexible configurations from 2M/E to 4M/E. The MVS-8000A works as the main processor of the MVS-8000A switcher system with the CCP-8000/CCP-9000 Center Control Panel, MVE-8000A/MVE-9000 Multi Format DME Processor, and MKS-8700/MKS-2700 Device Control Unit.

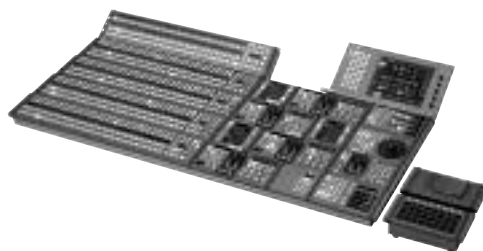
Features

- *Multi-format capability: 1080i/60, 59.94, 50, 1080p/30, 29.97, 25, 24, 23.976, 720p/59.94, 480i/59.94, 576i/50
- *2-, 2.5-, 3-, 3.5-, or 4-Mix/Effects configurations
- *Layout free CCP-8000 series control panels
- *Creative M/E functionality: Four full function keyers per M/E, Multiple M/E Program output configurations
- *Independent M/E functionality, 4:3 / 16:9, Crosspoint Assignments and Bus Toggle on/off, Snapshots, Keyframe and various setups
- *Up to 80 inputs and 56 outputs (including 8 monitor outputs)
- *Integrated device control for VTRs, Digital Disc Recorders, Digital Multi-Effects, Routing Switchers and more
- *Multi-panel / Multi-processor operations
- *Can store 58 frames of HD images
- *The frame memory systems has eight simultaneous outputs
- *Programmable Macro capability supported
- *Integrated 3D DME or external DME control
- *Remote maintenance and image file exchange via Ethernet network
- *User programmable tally conditions and multi-level tally

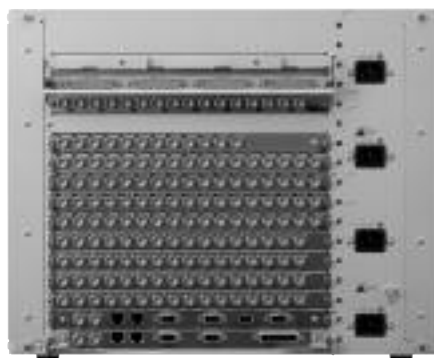
Supplied Accessories

- 75 Ω terminator (1)
- Bracket (4)
- Support angle (2)
- Screw (+B 4 x 10) (8)
- Screw (+PSW 4 x 10) (8)
- Operation manual (1)
- Installation manual (1)

For full list of options please refer to following product pages.



MVS Switcher Control Panel



MVS-8000A Multi-Format Switcher Processor

Digital Video Switchers & Accessories

Specifications

General

Power requirements:

100-240 V AC +/- 10%, 50/60 Hz

Power consumption

MVS-8000A Switcher processor:

15 to 6.25 A

MVE-8000A DME processor:

2.5 to 1.0 A

MVE-9000 DME processor:

6.0 to 2.5 A

MKS-8700 Device control unit:

1.4 to 0.8A

MKS-2700 Device control unit:

5.0 to 2.1A

Dimensions (W x H x D, without projection)

MVS-8000A Switcher processor:

482 x 354 x 520 mm

(19 x 14 x 20 1/2 inches)

MVE-8000A DME processor:

440 x 87.5 x 520 mm

(17 3/8 x 3 1/2 x 20 1/2 inches)

Main panel

4 M/E, 32 crosspoint buttons:

1443 (with Mount Bracket) x 98 (max.) x

528 mm

(56 7/8 x 3 7/8 x 20 7/8 inches)

3 M/E, 32 crosspoint buttons:

1443 (with mounting bracket) x 98 (max.)

x 528 mm

(56 7/8 x 3 7/8 x 20 7/8 inches)

2 M/E, 24 crosspoint buttons:

1291 (with mounting bracket) x 92 (max.)

x 396 mm

(50 7/8 x 3 5/8 x 15 5/8 inches)

AUX BUS panel

32 crosspoint buttons:

782 (with mounting bracket) x 132 x 80

(max.) mm

(30 7/8 x 5 1/4 x 3 1/4 inches)

24 crosspoint buttons:

630 (with mounting bracket) x 132 x 80

(max.) mm

(24 7/8 x 5 1/4 x 3 1/4 inches)

Menu panel:

424 x 220 x 46 mm

(16 3/4 x 8 3/4 x 1 13/16 inches)

Memory card/USB adaptor:

263 (with mounting bracket) x 132 x 78.5

mm

(10 3/8 x 5 1/4 x 3 1/8 inches)

Extension adaptor:

263 (with mounting bracket) x 132 x 78.5 mm

(10 3/8 x 5 1/4 x 3 1/8 inches)

MKS-8700 Device control unit:

482 x 132 x 520 mm

(19 x 5 1/4 x 20 1/2 inches)

MKS-2700 Device control unit:

440 x 43.6 x 520 mm

(17 3/8 x 1 3/4 x 20 1/2 inches)

Mass

MVS-8000A Switcher processor:

Approx. 51 kg (112 lb 7 oz) (fully loaded)

MVE-8000A DME processor:

Approx. 16 kg (35 lb 4 oz) (fully loaded)

Main panel (4 M/E, 32 crosspoint buttons):

Approx. 30 kg (66 lb 2 oz)

AUX BUS panel (32 crosspoint buttons):

Approx. 3.7 kg (8 lb 2 oz)

Menu panel:

Approx. 2.2 kg (4 lb 13 oz)

Extension adaptor (with fader):

Approx. 1.5 kg (3 lb 4 oz) (with module)

Memory card/USB adaptor:

Approx. 1.2 kg (2 lb 10 oz) (with module)

MKS-8700 Device control unit:

Approx. 8 kg (17 lb 10 oz)

MKS-2700 Device control unit:

Approx. 9.8 kg (21 lb 10 oz) (fully loaded)

Operation temperature:

+5 °C to +40 °C (+41°F to +104°F)

Operating humidity:

10% to 90% (non-condensing)

Serial digital video inputs

MVS-8000A Switcher processor

Primary Inputs:

Max. 80, BNC x 1 each,

SMPTE292M (HDTV), SMPTE259M-C

(SDTV)

Serial digital video outputs

MVS-8000A Switcher processor

Assignable outputs:

Max. 48,

OUT 1 to 4, 13 to 16, 25 to 28, 37 to 40:

BNC x 2 each

OUT 5 to 12, 17 to 24, 29 to 36, 41 to 48:

BNC x 1 each

SMPTE292M (HDTV), SMPTE259M-C

(SDTV)

Monitor outputs:

Max. 12, BNC x 2 each

SMPTE292M (HDTV), SMPTE259M-C

(SDTV)

Dedicated switcher/DME video I/O

MVS-8000A Switcher processor

Integrated DME I/O:

68-pin x 4, LVDS

MVE-8000A DME processor

Digital video I/O:

MDR 68-pin x 2 (inputs/outputs: 2 CH x 2),

LVDS

MVE-9000 DME processor

Digital video I/O:

MDR 68-pin x 2 (inputs/outputs: 2 CH x 2),

LVDS

Reference

Switcher processor, DME processor, system

control unit, device control unit

Reference input:

BNC x 2, 75 Ω with loop-through output

HDTV systems: HD tri-level sync/SDTV

analog sync

SDTV systems: Analog black burst/analog

sync

Switcher processor

Reference output:

BNC x 1, 75 Ω

HDTV systems: HD tri-level sync

SDTV systems: Analog sync

System interface

MVS-8000A Switcher processor

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Remote 1:

D-sub 9-pin, RS-422A

Remote 2:

D-sub 9-pin, RS-422A

Remote 3:

D-sub 9-pin, RS-422A

Remote 4:

D-sub 9-pin, RS-422A

Terminal:

D-sub 9-pin, RS-232C

GPI:

D-sub 25-pin, TTL level inputs x 8 /

relay contact outputs x 4 /

open collector outputs x 4

Extension:

BNC x 1

MVE-8000A DME processor

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Editor:

D-sub 9-pin x 4, RS-422A

GPI:

D-sub 25-pin, TTL level inputs x 8 /

relay contact outputs x 4 /

open collector outputs x 4

MVE-9000 DME processor

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Editor:

D-sub 9-pin x 4, RS-422A

GPI:

D-sub 25-pin x 2, dry contact or open

collector inputs x 16 /

relay contact outputs x 8 /

open collector outputs x 8

CCP-8000 Series System control unit

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

GPI:

D-sub 25-pin, TTL Level inputs x 8 /

relay contact outputs x 4 /

open collector outputs x 4

Remote:

BNC x 1, S-BUS

LTC:

BNC x 1

Device:

USB type A

MKS-8700 Device control unit

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

Serial tally 1:

D-sub 9-pin x 1, RS-422A

Serial tally 2:

D-sub 9-pin x 1, RS-422A

TALLY/GPI inputs:

D-sub 37-pin x 3, TTL level inputs x 34 each

TALLY/GPI outputs *:

D-sub 37-pin, relay contact outputs 18ch,

up to 270 ch in step of 5 ch in a frame

Remote*:

D-sub 9-pin, RS-422A, various protocols,

up to 30 ports in steps of 6 ports in a frame

MKS-2700 Device control unit

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

TALLY/GPI inputs:

D-sub 37-pin x 1, TTL level inputs x 34

TALLY/GPI outputs :

D-sub 37-pin x 2, TTL level inputs x 18

each

Remote:

D-sub 9-pin x 6, RS-422A, various protocols

* TALLY/GPI and REMOTE ports are alternatively installed. Mixed configuration of TALLY/GPI and REMOTE ports is supported.

MVS-8000ASF Multi-Format Switcher Processor

The MVS-8000ASF is a multi-format switcher processor with a compact frame size only 4 RU high. The MVS-8000ASF offers a variety of option boards for flexible configurations from 1M/E to 2.5M/E. The MVS-8000ASF works as the main processor of the MVS-8000ASF switcher system with the CCP-8000/CCP-9000 Center Control Panel, MVE-8000A/MVE-9000 Multi Format DME Processor, and MKS-8700/MKS-2700 Device Control Unit.

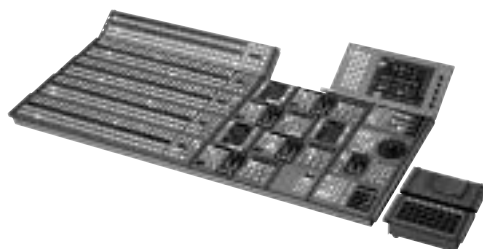
Features

- *Multi-format capability: 1080i/60, 59.94, 50, 1080p/30, 29.97, 25, 24, 23.976, 720p/59.94, 480i/59.94, 576i/50
- *1-, 1.5-, or 2-Mix/Effects configurations
- *Layout free CCP-8000 series control panels
- *Creative M/E functionality: Four full function keyers per M/E, Multiple M/E Program output configurations
- *Independent M/E functionality, 4:3 / 16:9, Crosspoint Assignments and Bus Toggle on/off, Snapshots, Keyframe and various setups
- *Up to 34 inputs and 32 outputs (including 8 monitor outputs)
- *Integrated device control for VTRs, Digital Disc Recorders, Digital Multi-Effects, Routing Switchers and more
- *Multi-panel / Multi-processor operations
- *Can store 58 frames of HD images
- *The frame memory systems has eight simultaneous outputs
- *Programmable Macro capability supported
- *Integrated 3D DME or external DME control
- *Remote maintenance and image file exchange via Ethernet network
- *User programmable tally conditions and multi-level tally

Supplied Accessories

- 75 Ω terminator (1)
- Bracket (4)
- Support angle (2)
- Screw (+B 4 x 10) (8)
- Screw (+PSW 4 x 10) (8)
- Operation manual (1)
- Installation manual (1)

For full list of options please refer to following product pages.



MVS Switcher Control Panel



MVS-8000ASF Multi-Format Switcher Processor

Digital Video Switchers & Accessories

Specifications

General

Power requirements:

100-240 V AC +/- 10%, 50/60 Hz

Power consumption

MVS-8000ASF Switcher processor:

7.5 to 3.1 A

MVE-8000A DME processor:

2.5 to 1.0 A

MVE-9000 DME processor:

6.0 to 2.5 A

MKS-8700 Device control unit:

1.4 to 0.8A

MKS-2700 Device control unit:

5.0 to 2.1A

Dimensions (W x H x D, without projection)

MVS-8000ASF Switcher processor:

482 x 177 x 520 mm

(19 x 7 x 20 1/2 inches)

MVE-8000A DME processor:

440 x 87.5 x 520 mm

(17 3/8 x 3 1/2 x 20 1/2 inches)

Main panel

4 M/E, 32 crosspoint buttons:

1443 (with Mount Bracket) x 98 (max.) x

528 mm

(56 7/8 x 3 7/8 x 20 7/8 inches)

3 M/E, 32 crosspoint buttons:

1443 (with mounting bracket) x 98

(max.) x 528 mm

(56 7/8 x 3 7/8 x 20 7/8 inches)

2 M/E, 24 crosspoint buttons:

1291 (with mounting bracket) x 92

(max.) x 396 mm

(50 7/8 x 3 5/8 x 15 5/8 inches)

AUX BUS panel

32 crosspoint buttons:

782 (with mounting bracket) x 132 x 80

(max.) mm

(30 7/8 x 5 1/4 x 3 1/4 inches)

24 crosspoint buttons:

630 (with mounting bracket) x 132 x 80

(max.) mm

(24 7/8 x 5 1/4 x 3 1/4 inches)

Menu panel:

424 x 220 x 46 mm

(16 3/4 x 8 3/4 x 1 13/16 inches)

Memory card/USB adaptor:

263 (with mounting bracket) x132 x

78.5 mm

(10 3/8 x 5 1/4 x 3 1/8 inches)

Extension adaptor:

263 (with mounting bracket) x132 x

78.5 mm

(10 3/8 x 5 1/4 x 3 1/8 inches)

MKS-8700 Device control unit:

482 x 132 x 520 mm

(19 x 5 1/4 x 20 1/2 inches)

MKS-2700 Device control unit:

440 x 43.6 x 520 mm

(17 3/8 x 1 3/4 x 20 1/2 inches)

Mass

MVS-8000ASF Switcher processor:

Approx. 28 kg (61 lb 12 oz) (fully

loaded)

MVE-8000A DME processor:

Approx. 16 kg (35 lb 4 oz) (fully loaded)

Main panel (4 M/E, 32 crosspoint buttons):

Approx. 30 kg (66 lb 2 oz)

AUX BUS panel (32 crosspoint buttons):

Approx. 3.7 kg (8 lb 2 oz)

Menu panel:

Approx. 2.2 kg (4 lb 13 oz)

Extension adaptor (with fader):

Approx. 1.5 kg (3 lb 4 oz) (with module)

Memory card/USB adaptor:

Approx. 1.2 kg (2 lb 10 oz) (with module)

MKS-8700 Device control unit:

Approx. 8 kg (17 lb 10 oz)

MKS-2700 Device control unit:

Approx. 9.8 kg (21 lb 10 oz) (fully loaded)

Operation temperature:

+5 °C to +40 °C (+41°F to +104°F)

Operating humidity:

10% to 90% (non-condensing)

Serial digital video inputs

MVS-8000ASF Switcher processor

Primary Inputs:

Max. 34, BNC x 1 each,

SMPTE292M (HDTV), SMPTE259M-C

(SDTV)

Serial digital video outputs

MVS-8000ASF Switcher processor

Assignable outputs:

OUT 1 to 4, 13 to 16: BNC x 2 each

OUT 5 to 12, 17 to 24: BNC x 1 each

Dedicated switcher/DME video I/O

MVS-8000ASF Switcher processor

Integrated DME I/O:

68-pin x 4, LVDS

MVE-8000A DME processor

Digital video I/O:

MDR 68-pin x 2 (inputs/outputs: 2 CH x 2), LVDS

MVE-9000 DME processor

Digital video I/O:

MDR 68-pin x 2 (inputs/outputs: 2 CH x 2), LVDS

Reference

Switcher processor, DME processor, system control unit, device control unit

Reference input:

BNC x 2, 75 Ω with loop-through output

HDTV systems: HD tri-level sync/SDTV

analog sync

SDTV systems: Analog black

burst/analog sync

Switcher processor

Reference output:

BNC x 1, 75 Ω

HDTV systems: HD tri-level sync

SDTV systems: Analog sync

System interface

MVS-8000ASF Switcher processor

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Remote 1:

D-sub 9-pin, RS-422A

Remote 2:

D-sub 9-pin, RS-422A

Remote 3:

D-sub 9-pin, RS-422A

Remote 4:

D-sub 9-pin, RS-422A

Terminal:

D-sub 9-pin, RS-232C

GPI:

D-sub 25-pin, TTL level inputs x 8 /

relay contact outputs x 4 /

open collector outputs x 4

Extension:

BNC x 1

MVE-8000A DME processor

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Editor:

D-sub 9-pin x 4, RS-422A

GPI:

D-sub 25-pin, TTL level inputs x 8 /

relay contact outputs x 4 /

open collector outputs x 4

MVE-9000 DME processor

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Editor:

D-sub 9-pin x 4, RS-422A

GPI:

D-sub 25-pin x 2, dry contact or open

collector inputs x 16/

relay contact outputs x 8 /

open collector outputs x 8

CCP-8000 Series System control unit

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

GPI:

D-sub 25-pin, TTL Level inputs x 8 /

relay contact outputs x 4 /

open collector outputs x 4

Remote:

BNC x 1, S-BUS

LTC:

BNC x 1

Device:

USB type A

MKS-8700 Device control unit

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

Serial tally 1:

D-sub 9-pin x 1, RS-422A

Serial tally 2:

D-sub 9-pin x 1, RS-422A

TALLY/GPI inputs:

D-sub 37-pin x 3, TTL level inputs x 34

each

TALLY/GPI outputs *:

D-sub 37-pin, relay contact outputs

18ch,

up to 270 ch in step of 5 ch in a frame

Remote*:

D-sub 9-pin, RS-422A, various protocols,

up to 30 ports in steps of 6 ports in a

frame

MKS-2700 Device control unit

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

TALLY/GPI inputs:

D-sub 37-pin x 1, TTL level inputs x 34

TALLY/GPI outputs :

D-sub 37-pin x 2, TTL level inputs x 18

each

Remote:

D-sub 9-pin x 6, RS-422A, various

protocols

* TALLY/GPI and REMOTE ports are alternatively installed. Mixed configuration of TALLY/GPI and REMOTE ports is supported.

DVS-9000 Production Switcher Processor

Compared to conventional SD switchers, the DVS-9000 Series offers greater system flexibility, a range of enhanced functions and a more compact design. The system-control structure and setup/effect data of the DVS-9000 Series switchers are compatible with the MVS-8000 Series switchers. This enables you to configure a mixed DVS-9000 Series and MVS-8000 Series setup, and also provides a smooth migration path from SD to HD operations, with minimal cost and system reconfiguration.

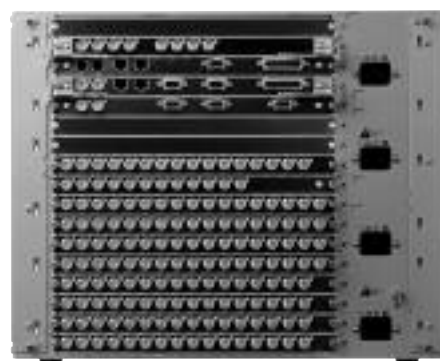
Features

- *525/625 switchable *8RU frame provides up to 80 primary inputs, 48 outputs and 8 monitor outputs *2-, 3- and 4-M/E configurations are available *Creative M/E functionality — Four full-function keyers per M/E, Multiple M/E program output configuration *Independent M/E functionality — 4:3/16:9 modes, crosspoint assignment, BUS toggle on/off, Snapshots, and keyframe can be set independently for each M/E *RGB color-corrector option (supported in the future) *Redundant power supply can be installed *Low power consumption — Switcher processor and built-in DME consume less than 750 W
- *Sophisticated DME — BKDS-9470 DME Board Set *Two 100base-TX network interfaces — Multi-panel and multi-processor operation, Remote maintenance and image file exchange, Set up, effect and image data transfer *Compatible panels and peripherals with MVS-8000 Series Switchers — CCP-8000 Series and CCP-9000 Series Control Panels, MKS-8700 Device Control Unit, MKS-8080/8082 Aux Bus Remote Panel, UCP-8060 Universal Control Panel

Supplied Accessories

- 75 Ω terminator (1)
- Bracket (4)
- Support angle (2)
- Screw (+B 4 x 10) (8)
- Screw (+PSW 4 x 10) (8)
- Operation manual (1)
- Installation manual (1)

For full list of options please refer to following product pages.



Specifications

General

Power requirement:
100 to 240 V AC, $\pm 10\%$ 50/60 Hz

Power consumption
DVS-9000:
8.6 to 4.2 A
CCP-8000 Series:
3.3 to 1.4 A
CCP-9000 Series:
0.9 to 0.4 A
Device control unit:
1.4 to 0.8 A

Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:
-20 °C to +60 °C (-4 °F to +140 °F)

Operating humidity:
10% to 90 % (Non-condensing)

Dimensions (W x H x D)
DVS-9000:
482 x 354 x 520 mm (19 x 14 x 20 1/2 inches)
CCP-8000 Series
Main Panel
4M/E, 32-crosspoint buttons:
1443 (with mount bracket) x 98.5 x 528 mm (56 7/8 x 4 x 20 7/8 inches)
3M/E, 24-crosspoint buttons:
1291 (with mount bracket) x 98.5 x 528 mm (50 7/8 x 4 x 20 7/8 inches)
2M/E, 16-crosspoint buttons:
1139 (with mount bracket) x 98.5 x 396 mm (44 7/8 x 4 x 15 5/8 inches)
Auxiliary Bus Panel
32-crosspoint buttons:
782 (with mount bracket) x 132 x 80 mm (30 7/8 x 5 1/4 x 3 1/4 inches)
24-crosspoint buttons:
630 (with mount bracket) x 132 x 80 mm (24 7/8 x 5 1/4 x 3 1/4 inches)
16-crosspoint buttons:
478 (with mount bracket) x 132 x 80 mm (18 7/8 x 5 1/4 x 3 1/4 inches)
Menu Panel:
424 x 220 x 46 mm (16 3/4 x 8 3/4 x 1 13/16 inches)
System Control Unit:
482 x 132 x 520 mm (19 x 5 1/4 x 20 1/2 inches)
CCP-9000 Series
Main Panel
2M/E, 12-crosspoint buttons/1M/E, 12-crosspoint buttons:
478 (with mount bracket) x 208 x 442 mm (18 7/8 x 8 1/4 x 17 1/2 inches)
Menu Panel:
424 x 220 x 46 mm (16 3/4 x 8 3/4 x 1 13/16 inches)
Device Control Unit:
482 x 132 x 520 mm (19 x 5 1/4 x 20 1/2 inches)
Memory Card/USB Adaptor:
263 (with mount bracket) x 132 x 78.5 mm (10 3/8 x 5 1/4 x 3 1/8 inches)

Extension Adaptor:
263 (with mount bracket) x 132 x 78.5 mm (10 3/8 x 5 1/4 x 3 1/8 inches)

Mass
DVS-9000:
Approx. 43 kg (94 lb 13 oz)
CCP-8000 Series
Main Panel (4M/E, 32-crosspoint buttons):
30 kg (66 lb 2 oz)
Auxiliary Bus Panel (32-crosspoint buttons):
3.7 kg (8 lb 2 oz)
Menu Panel:
2.2 kg (4 lb 13 oz)
System Control Unit:
12 kg (26 lb 7 oz)
CCP-9000 Series
Main Panel
2M/E, 12-crosspoint buttons:
12.5 kg (27 lb 9 oz)
1M/E, 12-crosspoint buttons:
11.5 kg (25 lb 6 oz)
Menu Panel:
2.2 kg (4 lb 13 oz)
Device Control Unit:
18 kg (39 lb 10 oz) (Fully loaded)
Memory Card/USB Adaptor:
1.2 kg (2 lb 10 oz) (with module)
Extension Adaptor:
1.5 kg (3 lb 4 oz) (with module)

Video inputs

Primary inputs:
BNC type connector x 1 each,
Max.80
Serial digital video signal, SMPTE259M-C,
0.8 Vp-p $\pm 10\%$, 270 Mb/s, 75 Ω
Input return loss:
15 dB
Cable length:
200 m (with Belden8281, 5C-2V or equivalent coaxial cable)
External inputs (Built-in DME):
BNC type connector x 4,
Serial digital video signal, SMPTE259M-C,
0.8 Vp-p $\pm 10\%$, 270 Mb/s, 75 Ω
Input return loss:
15 dB
Cable length:
200 m (with Belden8281, 5C-2V or equivalent coaxial cable)
Reference inputs:
BNC type x 2, loop-through, analog black burst or analog sync

Video outputs

OUT 1 to 48
OUT 1 to 4, 13 to 16, 25 to 28, 37 to 40:
BNC type connectors x 2 each
Out 5 to 12, 17 to 24, 29 to 36, 41 to 48:
BNC type connector x 1 each
Serial digital video signal, SMPTE259M-C,
0.8 Vp-p $\pm 10\%$, C135270 Mb/s, 75 Ω
OUT 49 to 56 (Monitor outputs):
BNC type connectors x 2 each
Serial digital video signal, SMPTE259M-C,
0.8 Vp-p $\pm 10\%$, 270 Mb/s, 75 Ω
MONITOR OUT 1 to 4 (built-in DME)
MONITOR OUTPUT:
BNC type connector x 1 each
Serial digital video signal, SMPTE259M-C,
0.8 Vp-p $\pm 10\%$, 270 Mb/s, 75 Ω
Reference output:
BNC type x 1, analog sync

Control

Control LAN:
RJ-45, 100Base-TX
Data LAN:
RJ-45, 100Base-TX
REMOTE 1 to 4:
D-SUB 9-pin, RS-422A
TERMINAL:
D-SUB 9-pin, RS-232C
GPI:
D-SUB 25-pin, female, relay contact outputs x 4, open collector outputs x 4
EXTENSION:
BNC type connector x 1
Built-in DME
Control LAN:
RJ-45, 100Base-TX
Data LAN:
RJ-45, 100Base-TX
REMOTE:
D-SUB 9-pin, RS-422A
GPI:
D-SUB 25-pin, female, relay contact outputs x 4, open collector outputs x 4
CCP-9000 Series
Control LAN:
RJ-45, 100Base-TX
Data LAN:
RJ-45, 100Base-TX
Peripheral LAN:
RJ-45, 100Base-TX
GPI:
D-SUB 25-pin, relay contact outputs x 4, open collector outputs x 4
Remote:
BNC type, S-BUS
Device:
USB type A
Main Panel:
D-sub 50-pin
Menu Panel:
D-sub 50-pin
Ext Panel:
D-sub 50-pin
Device Control Unit
Peripheral LAN:
RJ-45, 100Base-TX
Serial tally 1 to 2:
D-sub 9-pin, RS-422A
TALLY/GPI inputs:
D-sub 37-pin x3, TTL level inputs x 34 each,
TALLY/GPI outputs *:
D-sub 37-pin, relay contact outputs 18-ch, up to 15 ports in steps of 3 ports in a frame
REMOTE *:
D-sub 9-pin, RS-422A, various protocols, up to 30 ports in steps of 6 ports in a frame

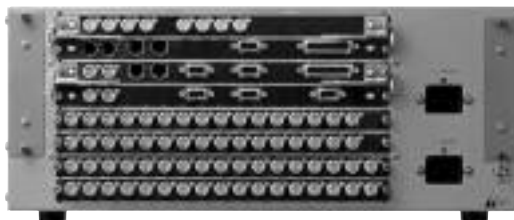
TALLY/GPI and REMOTE ports are alternatively installed. Mixed configuration of TALLY/GPI and REMOTE ports are supported.

DVS-9000SF Production Switcher Processor

Compared to conventional SD switchers, the DVS-9000 Series offers greater system flexibility, a range of enhanced functions and a more compact design. The system-control structure and setup/effect data of the DVS-9000 Series switchers are compatible with the MVS-8000 Series switchers. This enables you to configure a mixed DVS-9000 Series and MVS-8000 Series setup, and also provides a smooth migration path from SD to HD operations, with minimal cost and system reconfiguration.

Features

- *525/625 switchable
- *4RU frame provides up to 34 primary inputs, 24 outputs
- *1- and 2-M/E configurations are available
- *Creative M/E functionality — Four full-function keyers per M/E, Multiple M/E program output configuration
- *Independent M/E functionality — 4:3/16:9 modes, crosspoint assignment, BUS toggle on/off, Snapshots, and keyframe can be set independently for each M/E
- *RGB color-corrector option (supported in the future)
- *Redundant power supply can be installed
- *Low power consumption — Switcher processor and built-in DME consume less than 750 W
- *Sophisticated DME — BKDS-9470 DME Board Set
- *Two 100base-TX network interfaces — Multi-panel and multi-processor operation, Remote maintenance and image file exchange, Set up, effect and image data transfer
- *Compatible panels and peripherals with MVS-8000 Series Switchers — CCP-8000 Series and CCP-9000 Series Control Panels, MKS-8700 Device Control Unit, MKS-8080/8082 Aux Bus Remote Panel, UCP-8060 Universal Control Panel



Supplied Accessories

- 75 Ω terminator (1)
- Bracket (4)
- Support angle (2)
- Screw (+B 4 x 10) (8)
- Screw (+PSW 4 x 10) (8)
- Operation manual (1)
- Installation manual (1)

For full list of options please refer to following product pages.

Specifications

General

Power requirement:
100 to 240 V AC, $\pm 10\%$ 50/60 Hz

Power consumption
DVS-9000SF:
5.5 to 2.5 A

CCP-8000 Series:
3.3 to 1.4 A

CCP-9000 Series:
0.9 to 0.4 A

Device control unit:
1.4 to 0.8 A

Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:
-20 °C to +60 °C (-4 °F to +140 °F)

Operating humidity:
10% to 90 % (Non-condensing)

Dimensions (W x H x D)

DVS-9000SF:
482 x 177 x 520 mm (19 x 7 x 20 1/2 inches)

CCP-8000 Series
Main Panel
4M/E, 32-crosspoint buttons:
1443 (with mount bracket) x
98.5 x 528 mm (56 7/8 x 4 x 20 7/8 inches)

3M/E, 24-crosspoint buttons:
1291 (with mount bracket) x
98.5 x 528 mm (50 7/8 x 4 x 20 7/8 inches)

2M/E, 16-crosspoint buttons:
1139 (with mount bracket) x
98.5 x 396 mm (44 7/8 x 4 x 15 5/8 inches)

Auxiliary Bus Panel
32-crosspoint buttons:
782 (with mount bracket) x 132 x 80 mm (30 7/8 x 5 1/4 x 3 1/4 inches)

24-crosspoint buttons:
630 (with mount bracket) x 132 x 80 mm (24 7/8 x 5 1/4 x 3 1/4 inches)

16-crosspoint buttons:
478 (with mount bracket) x 132 x 80 mm (18 7/8 x 5 1/4 x 3 1/4 inches)

Menu Panel:
424 x 220 x 46 mm (16 3/4 x 8 3/4 x 1 13/16 inches)

System Control Unit:
482 x 132 x 520 mm (19 x 5 1/4 x 20 1/2 inches)

CCP-9000 Series
Main Panel
2M/E, 12-crosspoint buttons/1M/E, 12-crosspoint buttons:
478 (with mount bracket) x 208 x 442 mm (18 7/8 x 8 1/4 x 17 1/2 inches)

Menu Panel:
424 x 220 x 46 mm (16 3/4 x 8 3/4 x 1 13/16 inches)

Device Control Unit:
482 x 132 x 520 mm (19 x 5 1/4 x 20 1/2 inches)

Memory Card/USB Adaptor:
263 (with mount bracket) x 132 x 78.5 mm (10 3/8 x 5 1/4 x 3 1/8 inches)

Extension Adaptor:
263 (with mount bracket) x 132 x 78.5 mm (10 3/8 x 5 1/4 x 3 1/8 inches)

Mass

DVS-9000SF:
Approx. 25 kg (55 lb 8 oz)

CCP-8000 Series
Main Panel (4M/E, 32-crosspoint buttons):
30 kg (66 lb 2 oz)

Auxiliary Bus Panel (32-crosspoint buttons):
3.7 kg (8 lb 2 oz)

Menu Panel:
2.2 kg (4 lb 13 oz)

System Control Unit:
12 kg (26 lb 7 oz)

CCP-9000 Series
Main Panel
2M/E, 12-crosspoint buttons:
12.5 kg (27 lb 9 oz)

1M/E, 12-crosspoint buttons:
11.5 kg (25 lb 6 oz)

Menu Panel:
2.2 kg (4 lb 13 oz)

Device Control Unit:
18 kg (39 lb 10 oz) (Fully loaded)

Memory Card/USB Adaptor:
1.2 kg (2 lb 10 oz) (with module)

Extension Adaptor:
1.5 kg (3 lb 4 oz) (with module)

Video inputs

Primary inputs:
BNC type connector x 1 each,
Max.34
Serial digital video signal,
SMPTE259M-C, 0.8 Vp-p $\pm 10\%$, 270 Mb/s, 75 Ω

Input return loss:
15 dB

Cable length:
200 m (with Belden8281, 5C-2V or equivalent coaxial cable)

External inputs (Built-in DME):
BNC type connector x 4,
Serial digital video signal,
SMPTE259M-C, 0.8 Vp-p $\pm 10\%$, 270 Mb/s, 75 Ω

Input return loss:
15 dB

Cable length:
200 m (with Belden8281, 5C-2V or equivalent coaxial cable)

Reference inputs:
BNC type x 2, loop-through, analog black burst or analog sync

Video outputs

OUT 1 to 24
OUT 1 to 4, 13 to 16:
BNC type connectors x 2 each

OUT 5 to 12, 17 to 24:
BNC type connector x 1 each

Serial digital video signal,
SMPTE259M-C, 0.8 Vp-p $\pm 10\%$, C135270 Mb/s, 75 Ω

MONITOR OUT 1 to 4 (built-in DME MONITOR OUTPUT):
BNC type connector x 1 each

Serial digital video signal,
SMPTE259M-C, 0.8 Vp-p $\pm 10\%$, 270 Mb/s, 75 Ω

Reference output:
BNC type x 1, analog sync

Control

Control LAN:
RJ-45, 100Base-TX

Data LAN:
RJ-45, 100Base-TX

REMOTE 1 to 4:
D-SUB 9-pin, RS-422A

TERMINAL:
D-SUB 9-pin, RS-232C

GPI:
D-SUB 25-pin, female, relay contact outputs x 4, open collector outputs x 4

EXTENSION:
BNC type connector x 1

Built-in DME
Control LAN:
RJ-45, 100Base-TX

Data LAN:
RJ-45, 100Base-TX

REMOTE:
D-SUB 9-pin, RS-422A

GPI:
D-SUB 25-pin, female, relay contact outputs x 4, open collector outputs x 4

CCP-9000 Series
Control LAN:
RJ-45, 100Base-TX

Data LAN:
RJ-45, 100Base-TX

Peripheral LAN:
RJ-45, 100Base-TX

GPI:
D-SUB 25-pin, relay contact outputs x 4, open collector outputs x 4

Remote:
BNC type, S-BUS

Device:
USB type A

Main Panel:
D-sub 50-pin

Menu Panel:
D-sub 50-pin

Ext Panel:
D-sub 50-pin

Device Control Unit
Peripheral LAN:
RJ-45, 100Base-TX

Serial tally 1 to 2:
D-sub 9-pin, RS-422A

TALLY/GPI inputs:
D-sub 37-pin x3, TTL level inputs x 34 each,

TALLY/GPI outputs *:
D-sub 37-pin, relay contact outputs 18-ch, up to 15 ports in steps of 3 ports in a frame

REMOTE *:
D-sub 9-pin, RS-422A, various protocols, up to 30 ports in steps of 6 ports in a frame

TALLY/GPI and REMOTE ports are alternatively installed. Mixed configuration of TALLY/GPI and REMOTE ports are possible.

BKDS-9160 24-Output Board

The BKDS-9160 adds 24 outputs to the 24 outputs standard on the DVS-9000, making the total number of outputs 48.

Applicable Models

DVS-9000 Production Switcher Processor

BKDS-9161 8 Monitor Output Board

The BKDS-9161 is an optional SD SDI output board. With this option fitted, the DVS-9000 switcher processor offers eight re-clocked outputs to which the primary input signals can be routed with minimum delay. Those outputs are useful to monitor every primary input signal or to re-entry the primary input signals through the external processors such as color correctors.

NOTE: Unlike the BKDS-9160, those monitor outputs cannot handle the processed signals.

Applicable Models

DVS-9000 Production Switcher Processor

BKDS-9162 12-Output Board

The BKDS-9162 adds 12 outputs to the 12 outputs standard on the DVS-9000SF, making the total number of outputs 24.

Applicable Models

DVS-9000SF Production Switcher Processor

BKDS-9210 Mix/Effect Board

The BKDS-9210 is an optional mix/effects board set. With this option installed, the DVS-9000 is expandable from two to four M/Es, and the DVS-9000SF is expandable from one to two M/Es

Applicable Models

DVS-9000 Production Switcher Processor

DVS-9000SF Production Switcher Processor

BKDS-9470 DME Board Set

By installing the BKDS-9470, the DVS-9000 Series Switcher processors offer four channels of high-quality DME.

Features

*4 DME channels *Video, Key and SDI external video inputs per channel *External video input for use as the background or border/trail source *The four SDI monitor outputs allow monitoring of the video with graphic, the video without graphic, or the key *Y/C/K 10-bit processing *High-performance pixel-based anti-alias filter *8 x 8 multi-point interpolation *Frame base processing *2D, 3D and non-linear effects *Digital SKETCH, Digital SPARKLE, Color Corrector and up to four channels of Intersect Combine *Powerful lighting effects

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor

Optional Accessories

BZS-9471 Texture Lighting Software

BZS-9471 Texture Lighting Software

Texture Lighting Software for the Sony DME board set BKDS-9470

Features

The BZS-9471 is Texture Lighting Software for use with the BKDS-9470 DME board installed in the DVS-9000 Production switcher processor. Its texture lighting function enables you to map a texture pattern onto a DME effect using the spotlight function. The Real Lighting Function can add more realistic lighting to several Non-linear effect patterns. Up to four light sources are available per DME channel. With its Test Sphere Function, the position and brightness of light sources can be confirmed with ease.

*V3.0 or later software is required in the BKDS-9470 to install the BZS-9471 Texture Lighting Software.

Applicable Models

BKDS-9470 DME Board Set

MKS-8110M 17-Input Board (HD/SD Multi-format)

The MKS-8110M is an optional HD SDI or SD SDI input board. With this option fitted, the MVS-8000 Series Switcher processor provides 17 HD SDI or SD SDI inputs.

Features

*The MVS-8000 switcher processor can expand up to 80 inputs with the MKS-8110M and MKS-8111M *The MVS-8000SF switcher processor can expand up to 34 inputs

Applicable Models

MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

MKS-8110SD 17-Input Board (SD)

The MKS-8110SD is an optional SD SDI input board. With this option fitted, the MVS-8000/DVS-9000 Series switcher processor provides 17 SD SDI inputs

Features

*The MVS-8000 and DVS-9000 switcher processor can expand up to 68 inputs *The MVS-8000SF and DVS-9000 SF switcher processor can expand up to 34 input

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor

MKS-8111M Additional 12-Input Board (HD/SD Multi-format)

MKS-8111M is an optional board that provides 12 HD SDI or SD SDI inputs. The HD SDI or SD SDI inputs of MVS-8000 and DVS-9000 Switcher processor can be expanded up to 80 in combination use of four MKS-8110M boards and a MKS-8111M board.

Applicable Models

MVS-8000A Multi-Format Switcher Processor

MKS-8111SD Additional 12-Input Board (SD)

MKS-8111SD is an optional board that provides 12 SD SDI inputs. The SD SDI inputs of MVS-8000 and DVS-9000 switcher processor can be expanded up to 80 in combination use of four MKS-8110SD boards and a MKS-8111SD board.

Applicable Models

DVS-9000 Production Switcher Processor

MKS-8160A 24-Output Board Set (HD/SD Multi-format)

The MKS-8160A is an optional HD SDI/SD SDI multi-format output board. With this option installed, the MVS-8000A Switcher processor offers 24 HD SDI or SD SDI outputs.

Applicable Models

MVS-8000A Multi-Format Switcher Processor

MKS-8161M Monitor Output Board

The MKS-8161M is an optional HD SDI/SD SDI multi-format output board. With this option fitted, the MVS-8000 Switcher processor offers eight re-clocked outputs to which the primary input signals can be routed with minimum delay. Those outputs are useful to monitor every primary input signal or to re-entry the primary input signals through the external processors such as colour correctors.

Applicable Models

MVS-8000A Multi-Format Switcher Processor

MKS-8162A 12-Output Board

The MKS-8162A adds 12 outputs to the 12 outputs standard on the MVS-8000ASF, making the total outputs 24.

Applicable Models

MVS-8000ASF Multi-Format Switcher Processor

MKS-8170M DME Interface Board (HD/SD Multi-format)

Features

A DME interface board for multi-format applications for MVS-8000 Series.

Applicable Models

MVS-8000A Multi-Format Switcher Processor

MVS-8000ASF Multi-Format Switcher

Processor

MKS-8210A Mix/Effect Board

The MKS-8210A mix/effects board is an optional board for the MVS-8000A and MVS-8000ASF production switcher systems. By installing the MKS-8210A, the MVS-8000A Switcher processor can be extended from two to four M/Es and the MVS-8000ASF Switcher processor can be extended from one to two M/Es.

Applicable Models

MVS-8000A Multi-Format Switcher Processor

MVS-8000ASF Multi-Format Switcher

Processor

MKS-8440A Frame Memory Board

The MKS-8440A frame memory board is an optional board for the MVS-8000A and the MVS-8000ASF production switcher systems. By installing the MKS-8440A, the MVS-8000A Series can store 58 frames of HD images*. Images can either be stored separately or paired for video/key operation.

Applicable Models

MVS-8000A Multi-Format Switcher Processor

MVS-8000ASF Multi-Format Switcher

Processor

BZS-8250 Simple p/p software

Additional simple PGM/PST function for the MVS-8000A Series switcher system

The BZS-8250 software allows the addition of a simple PGM/PST function to the MVS-8000A Series Switcher system to configure it as a 1.5/2.5/3.5 M/E system.

It can also be used to add two DSKs but without the simple PGM/PST function.

*Offers a simple PGM/PST function; BKGD A/B buses, two simple DSK and FTB

*Provides transition type; CUT, MIX, WIPE, SUPER MIX, NAM and PRESET

COLOR MIX *Provides Transition Preview function

*DSK supports Luminance Key and Linear Key *DSK provides modifiers such as CLEAN MODE, KEY EDGE POSITION, INVERT, SHOW KEY, AUTO/SELF/SPLIT

mode *FTB (FADE TO BLACK) function *Memory

system for WIPE SNAPSHOT, KEY SNAPSHOT,

SNAPSHOT, EFFECT *Controlled from PGM/PST

control area on the CCP-8000/9000 Series control panel

*When the BZS-8250 is used to add DSKs (DSK Mode), the additional DSKs are operated from MKS-8034ADK or MKS-8032A

Applicable Models

MVS-8000SF Multi-Format Switcher Processor

MVS-8000 Multi-Format Switcher Processor

BZS-9250 Simple p/p software

Additional simple PGM/PST function for the DVS-9000 Series switcher system.

The BZS-9250 software allows the addition of a simple PGM/PST function to the DVS-9000 Series Switcher system to configure it as a 1.5/2.5/3.5 M/E system.

It can also be used to add two DSKs but without the simple PGM/PST function.

*Offers a simple PGM/PST function; BKGD A/B buses, two simple DSK and FTB

*Provides transition type; CUT, MIX, WIPE, SUPER MIX, NAM and PRESET COLOR MIX

*Provides Transition Preview function *DSK supports

Luminance Key and Linear Key *DSK provides modifiers such as CLEAN MODE, KEY EDGE POSITION, INVERT,

SHOW KEY, AUTO/SELF/SPLIT mode *FTB (FADE TO

BLACK) function *Memory system for WIPE SNAPSHOT,

KEY SNAPSHOT, SNAPSHOT, EFFECT *Controlled from

PGM/PST control area on the CCP-8000/9000 Series

control panel *When the BZS-9250 is used to add DSKs

(DSK Mode), the additional DSKs are operated from

MKS-8034ADK or MKS-8032A

Applicable Models

DVS-9000SF Production Switcher Processor

DVS-9000 Production Switcher Processor

BZPS-8000 System Management Software

The BZPS-8000 running on a PC enables integrated management of all Sony live production products configured around and networked to the MVS/DVS Series Switchers. A software package for client and server PC.

Features

*System data backup/restore — Setups, effects, images, etc. for MVS/DVS, PFV-SP and Router can be backup and restored at a time. Multiple system data can be handled easily per On-air program, per Event, per Operating clue, etc. *File server — Individual file transfer control. File accessing from MVS/DVS panel. *Status Monitoring/SNMP IF — System status (detected error per equipment) can be displayed on status menu. Convert MVS/DVS status to SNMP for Maintenance Manager. *Server and Client — Server function is fundamental part: Gateway, File Server, SNMP IF, etc. Client function is user interface to operate System manager functions *Launcher — There will be some plug-in application software available: MVS/DVS Setup, PFV-SP Setup, Router Setup, etc.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

The required PC specifications for System Manager Server and Client as follows

Server PC

Model:

Dell PowerEdge 350

CPU:

Celeron® 850 MHz or greater

HDD:

40 GB or more

Memory:

512 MB or more

OS:

Red Hat Linux 7.2

* At the initial setup of PC, VGA Display and PS/2 Keyboard will be required.

However, these are no longer required after the initial setup. RS-232C remote access from the other PC can update the software.

* Dell PC Model is current and may be replaced with successor sooner or later. So, we will keep you updated if some changes happen.

Client PC

CPU:

1 GHz or faster

Memory:

256 MB or more

Ethernet:

100Base-Tx

OS:

Windows 2000 Professional

* The target schedule to support Windows XP will be informed later.

BZPS-8001 Switcher Setup Software

The BZPS-8001 for a client PC of the System Manager allows remote setup and control of MVS/DVS Series switchers. A software package for online software and offline software for a client PC.

Features

*Online — Setup MVS/DVS panel menu can be operated on PC remotely (online). *Offline Setup — MVS/DVS setup can be created on PC anytime/anywhere (offline). Source assignment, name settings, etc. on Windows circumstance. *Remote Diagnosis — Remotely control MVS/DVS diagnosis.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

HK-PSU04 Power supply unit

Applicable Models

MVE-9000 Multi-format DME Processor
DVS-9000SF Production Switcher Processor
DVS-9000 Production Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000Multi-Format Switcher Processor

Supplied Accessories

Installation Guide

Specifications

General

Power requirements
100 to 240 V AC ± 10%, 50/60 Hz
Output power
12 V DC ±0.5V
Power consumption
10 to 5 A
Secondary power supply
Max. 60 A
Dimensions (W x H x D)
94 x 83 x 396 mm (3 ¾ x 3 ¾ x 15 ½ inches)
Mass
Approx. 3 kg (6 lb 9 oz)

MVE-8000A Multi-Format DME Processor

The MVE-8000A is a multi-format DME processor for the MVS-8000A Series Multi-Format Production Switcher System with its frame size only 2 RU. The MVE-8000A provides a wide variety of effects such as 2D/3D and linear/non-linear transforms in both HDTV and SDTV video formats, which can be easily switched from switcher control panel without swapping the boards. The MVE-8000A is integrated to the MVS-8000A Series switcher processor via dedicated cables without consuming the SDI inputs and outputs on the switcher processor. In conjunction with the MVE-8000A, the MVS-8000A Series system allows DME- Wipes, Processed Key, and a wide variety of attractive effects, which can be controlled from the control panel as if they were a part of the switcher functions.



Applicable Models

MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Operation Manual (1)
Installation Manual (1)
Switcher Video Interface Cable (3 m) (2)

Optional Accessories

MKE-8021A Input/Output Board (SDI)
MKE-8020A MVS Interface Board
MKE-8040A Effects Board (MVE-8000A)
HK-PSU02 Power Supply Unit

Specifications

General

Power requirements:
100 - 240 V \pm 10%, 50/60 Hz
Power consumption:
2.5 to 1.0 A
Dimensions (W/H/D):
440 mm x 87.5 mm x 520 mm (17 3/8 x 3 1/2 x 20 1/2 inches)
(without projection)
Mass:
16 kg (35 lb 4 oz) (fully loaded)
Operation Temperature:
+ 5 °C to + 40 °C (+ 41 °F to + 104 °F)
Operating humidity:
10% to 90% (non-condensing)

Inputs/outputs

MKE-8020A:
MDR 68-pin x 2 (inputs/outputs: 2 CH x 2), LVDS
MKE-8021A:
Video inputs-Video/Key: BNC x 8, SDI
Video outputs-Video/Key: BNC x 8, SDI
Monitor outputs: BNC x 4, SDI
Reference:
BNC x 2, 75 Ω with loop-through output
Analog black burst or HD tri-level sync

System interface

Control LAN:
RJ-45 x 1, 100BASE-TX
DATA LAN:
RJ-45 x 1, 100BASE-TX
Editor:
D-sub 9-pin x 4, RS-422A
GPI:
D-sub 25-pin, TTL level inputs x 8,
relay contact outputs x 4, open collector
outputs x 4

HK-PSU02 Power Supply Unit

Redundant power supply unit for the MFS-2000 Multi Format Switcher Processor and MKS-8010A System Control Unit

Applicable Models

MFS-2000 Multi-Format Switcher Processor
MKS-8010A System Control Unit
MVE-8000A Multi-Format DME Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Installation Guide (1) (1)

Specifications

General

Operating temperature:
5 to 40 °C (41 to 104 °F)
Storage temperature:
- 20 to 60 °C (- 4 to 140 °F)
Operating humidity:
10% to 90% (nocondensation)

MKE-8020A MVS Interface Board

The MKE-8020A is an optional board for the MVE-8000A Multi Format DME Processor. The MVE-8000A requires the MKE-8020A as an interface board to the MVS-8000A series production switcher system.

Applicable Models

MVE-8000A Multi-Format DME Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Operation Manual (1)
Dedicated Interface Cable (2)
Installation Guide (1)

Specifications

Video inputs/Video outputs
MVS interface:
MDR 68-pin x 2 (inputs/outputs:
2 CH x 2), LVDS

MKE-8021A Input/Output Board (SDI)

The MKE-8021A is an optional board for the MVE-8000A Multi Format DME Processor. The MKE-8021A has input and output connectors for SDI signals and BNC connectors for monitoring.

Applicable Models

MVE-8000A Multi-Format DME Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Operation Manual (1)
Installation Guide (1)

Specifications

Video inputs
Video/Key: BNC connector x 8, SDI
Video outputs
Video/Key: BNC connector x 8, SDI
Monitor outputs:
BNC connector x 4, SDI

MKE-8040A Effects Board (MVE-8000A)

The MKE-8040A Effects Board provides excellent 2-channel effects to the MVE-8000A Multi Format DME Processor. The MKE-8040A provides the following stunning effects: Beveled Edge, Glow, Digital SKETCH., Metal, and Mask. Its multi-format capabilities make it suited to both content creation in high-end production and post-production. The MKE-8040A comprises a single board.

Applicable Models

MVE-8000A Multi-Format DME Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

MVE-9000 Multi-format DME Processor

The MVE-9000 provides high picture quality and a rich set of features for the creation of stunning special effects in live environments and post-production.

Features

*High-quality DME *HD/SD multi-format capability *HDTV: 1080i/50, 59.94, 60, 1080p/23.976, 24, 25, 29.97, 30, 720p/59.94 *SDTV: 480i/59.94, 576i/50 *A variety of effects *3D Linear/Nonlinear, Sparkle, Input Freeze, Defocus, Key Border, Beveled Edge, Glow, Sketch, Metal, Mask, Light, Shadow, Trail and more *Up to four channels of Combine with Intersect and Dim/Fade *Effect data compatible with the MVE-8000 *Y/C/K 10-bit processing *Field/Frame-based processing *High-performance pixel-based anti-alias filter *High-quality multi-point interpolation *Up to four channels can be configured on a channel basis *One of the following video interface boards can be installed — The MKE-9021M for standalone operations or MKE-9020M for dedicated connection to the MVS Series switcher *4U high, less than 15 kg in weight, and less than 500 W consumed when fully loaded with its option boards *Redundant power supply HK-PSU04 can be installed *Four RS-422 interfaces for control from external editor *Each channel can be independently controlled *GPI and Tally interface *100Base-TX network interfaces allow the transfer of files (image, effect, setup, etc.) between equipment connected to the MVS Data LAN, and real time control via the MVS Control LAN



Applicable Models

MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Operation Manual (1)
Installation Manual (1)
75 Ω Terminator (1)
Mounting Bracket (1)
Support Angle (1)
Screw (1)

Optional Accessories

BZDM-9050 Texture Lighting Software

Optional Boards

MKE-9020M MVS Interface Board Set for the MVE-9000
MKE-9021M Input/Output Board Set for the MVE-9000
MKE-9040M Advanced Effects Board for the MVE-9000
HK-PSU04 Power Supply Unit

Specifications

General

Power requirement:
100 V to 240 V \pm 10% 50/60 Hz
Power consumption:
500 VA
Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:
-20 °C to + 60 °C (-4 °F to + 140 °F)
Operating humidity:
10% to 90% RH
Dimensions (W x H x D):
482 x 194 x 520 mm (19 x 7 3/4 x 20 1/2 inches)

Mass:

Approx. 20 kg (44 lb 1 oz)

Inputs

Video inputs (MKE-9021M)

SDI

Video/Key:

BNC-type connectors x 8

Ext Video IN:

BNC-type connectors x 4

Reference:

BNC type connectors x 2, 75 Ω with

loop-through output

Analog black burst or HD tri-level sync

Outputs

Video outputs (MKS-9021M)

SDI

Video/Key:

BNC-type connectors x 8

Monitor Out:

BNC-type connectors x 4

Video inputs/Video outputs (MKE-9020M)

MVS interface:

MDR 68-pin x 2 (inputs/outputs: 2 CH x 2),

LVDS

Control signals

Control LAN:

RJ-45 x 1, 100Base-TX

Data LAN:

RJ-45 x 1, 100Base-TX

Remote:

D-SUB 9-pin x 4, RS-422

GPI:

D-SUB 25-pin x 2, dry contact or open

collector inputs x 16, relay contact outputs x 8, open collector outputs x 8

MKE-9020M MVS Interface Board Set for the MVE-9000

*Provides dedicated Video and Key I/O, SDI External video inputs per channel, and 4 SDI monitor outputs

*Provides a 68-pin multi-connector cables to connect to the MVS-8000 Series switcher

Applicable Models

MVS-8000ASF Multi-Format Switcher Processor

MVS-8000A Multi-Format Switcher Processor

MVE-9000 Multi-format DME Processor

Supplied Accessories

Operation and Installation Guide

Specifications

Video inputs/Video outputs

MVS interface

MDR 68-pin x 2

(inputs/outputs: 2 CH x 2), LVDS

MKE-9021M Input/Output Board Set for the MVE-9000

*Provides SDI interfaces for stand alone operations

*Provides Video, Key, and External video inputs per channel, Video and Key outputs per channel and

4 monitor outputs *Provides SDI connectors to connect to the MVS-8000 Series switcher

Applicable Models

MVS-8000ASF Multi-Format Switcher Processor

MVS-8000A Multi-Format Switcher Processor

MVE-9000 Multi-format DME Processor

Supplied Accessories

Operation and Installation Guide

Specifications

Video inputs/Video outputs

Video/Key

BNC-type connectors x 8, SDI

MKE-9040M Advanced Effects Board for the MVE-9000

*Provides one channel of DME effects; 2D/3D Transform

including non-linear effects, sketch, beveled edge and

more *Up to four MKE-9040M boards can be installed into an MVE-9000 unit on a channel basis

Applicable Models

MVS-8000ASF Multi-Format Switcher Processor

MVS-8000A Multi-Format Switcher Processor

MVE-9000 Multi-format DME Processor

Supplied Accessories

Operation and Installation Guide

BZDM-9050 Texture Lighting Software

Texture Lighting Software for the Sony Multi-format DME processor MVE-9000

Features

The BZDM-9050 is Texture Lighting Software for use with the MVE-9000 Multi-format DME processor. Its texture lighting function enables you to map a texture pattern onto a DME effect using the spotlight function. The Real Lighting Function can add more realistic lighting to several Non-linear effect patterns. Up to four light sources are available per DME channel. With its Test Sphere Function, the position and brightness of light sources can be confirmed with ease.

*V3.0 or later software is required in the MVE-9000 to install the BZDM-9050 Texture Lighting Software.

Applicable Models

MVE-9000 Multi-format DME Processor

MKS-8700 Device Control Unit

The MKS-8700 is a device control unit for MVS-8000 Series in conjunction with MKS-8701 Tally/GPI Board and/or MKS-8702 Serial Interface Board. Up to five boards can be installed. One MKS-8700 can provide Tally/GPI port expansion in 3-port increments up to 15 ports (18 channels per one port) in combination with the MKS-8701. It can also provide RS-422A port expansion in 6-port increments up to 30 ports in combination with the MKS-8702.



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Operation Manual (1)
Installation Manual (1)
75 Ω terminator (1)
Redundant power supply unit (1)

Optional Boards

MKS-8701 Tally/GPI Output Board
MKS-8702 Serial Interface Board

Specifications

General

Power:

Power Requirement
100-240 V AC +/- 10% 50/60 Hz
Power Consumption
max. 250 W

Dimensions (W x H x D, without projection):

482 mm x 132 mm x 520 mm
(19 x 5 1/4 x 20 1/2 inches)

Mass:

18 kg (39 lb 10 oz) (Fully Loaded)

Operation Temperature:

+5 °C to +40 °C (+41°F to +104°F)

Relative Humidity:

Up to 90% (Non-Condensing)

Reference

Reference Input:

BNC connector x 2, Loop-through
HD Tri-level Sync (HDTV only) or
Analog Black Burst or Sync

System Interface

Peripheral LAN :

RJ-45, 100BASE-TX

Serial Tally 1:

D-sub 9-pin, RS-422A

Serial Tally 2:

D-sub 9-pin, RS-422A

TALLY/GPI * :

D-sub 37-pin, relay contact outputs 18-ch
up to 15 ports in steps of 3 ports in a
frame

REMOTE :

D-sub 9-pin, RS-422A, various protocols,
up to 30 ports in steps of 6 ports in a
frame

TALLY/GPI and REMOTE ports are alternatively
installed. Mixed configuration of TALLY/GPI and
REMOTE ports are possible.

MKS-8701 Tally/GPI Output Board

The MKS-8701 is a tally/GPI output board for MVS-8000 Series in conjunction with MKS-8700 Device Control Unit and/or MKS-8702 Serial Interface Board. Up to five boards can be installed. One MKS-8700 can provide Tally/GPI port expansion in 3-port increments up to 15 ports (18 channels per one port) in combination with the MKS-8701. It can also provide RS-422A port expansion in 6-port increments up to 30 ports in combination with the MKS-8702.

Applicable Models
MKS-8700 Device Control Unit

MKS-8702 Serial Interface Board

The MKS-8702 is a serial interface board for MVS-8000 Series in conjunction with MKS-8700 Device Control Unit and/or MKS-8701 Tally/GPI Interface Board. Up to five boards can be installed. One MKS-8700 can provide RS-422A port expansion in 6-port increments up to 30 ports in combination with the MKS-8702. It can also provide Tally/GPI port expansion in 3-port increments up to 15 ports (18 channels per one port) in combination with the MKS-8701.

Applicable Models
MKS-8700 Device Control Unit

MKS-2700 Device Control Unit

The MKS-2700 Device Control Unit is a compact Device Control Unit for the MVS-8000A series, the DVS-9000 series, and the MFS-2000 production switcher system with its size 1RU. Redundant power supply is supported by using the optional HK-PSU01 Power Supply Unit. The MKS-2700 is suitable for small-scale systems with affordable price.



Applicable Models
MFS-2000 Multi-Format Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Optional Accessories
HK-PSU01 Power Supply Unit

Specifications

General

- Power consumption:
0.7 to 0.5 A
- Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
- Storage temperature:
-20 °C to +60 °C (-4 °F to +140 °F)
- Operation humidity:
10% to 90% RH
- Dimensions (W x H x D):
440 x 43.6 x 520 mm (17 3/8 x 1 3/4 x 20 1/2 inches)
- Mass:
9.8 kg (21 lb 10 oz)

Control signals

- Peripheral LAN:
RJ-45 x 1, 100BASE-TX
- TALLY/GPI inputs:
D-sub 37-pin x 1, TTL level inputs x 34
- TALLY/GPI outputs:
D-sub 37-pin x 2, TTL level inputs x 18 each
- REMOTE:
D-sub 9-pin x 6, RS-422A, various protocols

MKS-8010A System Control Unit

The MKS-8010A System Control Unit works as the central control over the CCP-8000Series Center Control Panel. The system control unit provides control functions for the center control panel, supplies power to various panel modules, and stores the whole setup data, effects data, snapshot data and still images.



Features

*The MKS-8010A is a compact system control unit with its size compact 1RU
*Redundant power supply is supported by using the optional HK-PSU02 Power Supply Unit

Optional Accessories

HK-PSU02 Power Supply Unit
SWC-5002 Control Panel Cable
SWC-5005 Control Panel Cable
SWC-5010 Control Panel Cable
MKS-8075 Extension Adaptor
MKS-8076 Memory Card/USB Adaptor

Mass:
11.5 kg (25 lb 6 oz)
Operating temperature:
5 to 40 °C (41to +104°F)
Operating humidity:
10% to 90% (Non-condensing)

Inputs

Reference Input:
BNC connector x 2, Loop-through
HD Tri-level Sync (HDTV only) or Analog
Black Burst or Sync

System interface

Control LAN:
RJ-45, 100BASE-TX
Data LAN:
RJ-45, 100BASE-TX
Peripheral LAN:
RJ-45, 100BASE-TX

GPI:
D-sub 25-pin, TTL level inputs x 8 /
relay contact outputs x 4 /
open collector outputs x 4
Remote:
BNC connector x 1, S-BUS
LTC:
BNC connector x 1
Device:
USB Type A

Specifications

General

Power requirements:
100 to 240 V AC +/- 10%, 50/60 Hz
Power consumption:
Max. 250 W (incl. Center Control Panel,
Aux Panel and Menu Panel)
Dimensions (W x H x D, without projection):
440 x 43.6 x 520 mm (17 3/8 x 1 3/4 x
20 1/2 inches)

MKS-8011A Menu Panel

A menu panel is used to select different types of effects, such as transitions, keys, wipes, DME (digital multi effect) functions, etc. and to set up the operational mode and the system setting of peripherals. A 10.4-inch, touch-sensitive color LCD screen is adopted for the menu panel to give intuitive and speedy operation.



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MKS-9011 1 M/E Control Panel
MKS-9012 2 M/E Control Panel
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
424 x 220 mm (5 RU) (16 3/4 x 8 3/4
inches)

MKS-8013A 32 Aux Bus Module

The auxiliary module is used to select sources for monitoring and recording, and also to select material to the frame memory and DME. By changing their operational mode, these buses can then select the destinations and sources of a routing switcher. Each auxiliary bus has two crosspoint button rows, the allocation of which can be set independently. For instance, the DME video can be on the upper row and the DME key on the lower row, alternatively both Shifted and Non-shifted sources can be displayed at the same time.



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

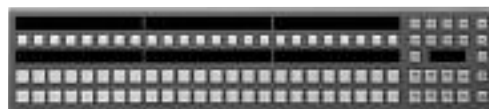
Specifications

General

Dimensions (W x H):
750 x 132 mm (3 RU) (29 5/8 x 5 1/4 inches)

MKS-8014A 24 Aux Bus Module

The auxiliary bus module is used to select sources for monitoring and recording, and also to select material to the frame memory and DME. By changing their operational mode, these buses can then select the destinations and sources of a routing switcher. Each auxiliary bus has two crosspoint button rows, the allocation of which can be set independently. For instance, the DME video can be on the upper row and the DME key on the lower row, alternatively both Shifted and Non-shifted sources can be displayed at the same time.



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

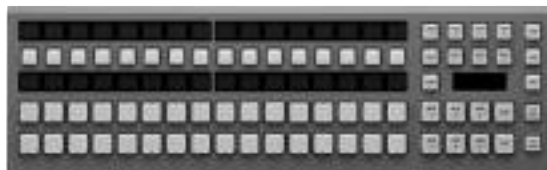
Specifications

General

Dimensions (W x H):
598 x 132 mm (3 RU) (23 1/2 x 5 1/4 inches)

MKS-8015A 16 Aux Bus Module

The auxiliary bus module is used to select sources for monitoring and recording, and also to select material to the frame memory and DME. By changing their operational mode, these buses can then select the destinations and sources of a routing switcher. Each auxiliary bus has two crosspoint button rows, the allocation of which can be set independently. For instance, the DME video can be on the upper row and the DME key on the lower row, alternatively both Shifted and Non-shifted sources can be displayed at the same time.



Applicable Models

DVS-9000 Production Switcher Processor
 DVS-9000SF Production Switcher Processor
 MVS-8000A Multi-Format Switcher Processor
 MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
 444 x 132 mm (3RU) (17 1/2 x 5 1/4 inches)

MKS-8017A 32 Crosspoint Module

The Crosspoint module is used to select background and key sources for each M/E or PGM/PST bank. These modules provide two rows of key source selection buttons, plus a source name display row and two background source selection rows. On the key source selection rows, Keys 1/3 and Keys 2/4 can be interchanged. On the Background rows, sources can also be selected from the Utility 1/2 busses. Three-color, backlit LCD displays are used on the source name display row. These enable text and graphics to be displayed in any one of three colors for easy user identification of source type.



Applicable Models

DVS-9000 Production Switcher Processor
 DVS-9000SF Production Switcher Processor
 MVS-8000A Multi-Format Switcher Processor
 MVS-8000ASF Multi-Format Switcher Processor

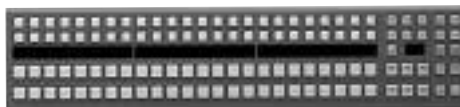
Specifications

General

Dimensions (W x H):
 750 x 132 mm (3 RU) (29 5/8 x 5 1/4 inches)

MKS-8018A 24 Crosspoint Module

The crosspoint module is used to select background and key sources for each M/E or PGM/PST bank. These modules provide two rows of key source selection buttons, plus a source name display row and two background source selection rows. On the key source selection rows, Keys 1/3 and Keys 2/4 can be interchanged. On the Background rows, sources can also be selected from the Utility 1/2 bus. Three-color, backlit LCD displays are used on the source name display row. These enable text and graphics to be displayed in any one of three colors for easy user identification of source type.



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

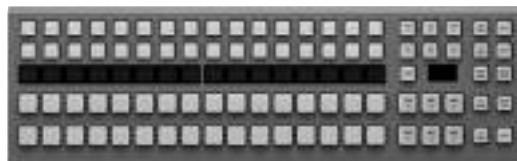
Specifications

General

Dimensions (W x H):
598 x 132 mm (3 RU) (23 1/2 x 5 1/4 inches)

MKS-8019A 16 Crosspoint Module

The crosspoint module is used to select background and key sources for each M/E or PGM/PST bank. These modules provide two rows of key source selection buttons, plus a source name display row and two background source selection rows. On the key source selection rows, Keys 1/3 and Keys 2/4 can be interchanged. On the Background rows, sources can also be selected from the Utility 1/2 bus. Three-color, backlit LCD displays are used on the source name display row. These enable text and graphics to be displayed in any one of three colors for easy user identification of source type.



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
444 x 132 mm (3 RU) (17 1/2 x 5 1/4 inches)

MKS-8020A Standard Transition Module

The standard transition module is used to cut or transition images on each M/E or PGM/PST bank. It consists of a standard transition area equipped with fader lever and four additional dedicated key transition areas, any of which can be used independently for transition selection and execution. This standard transition area allows priority setting of all four keys with transition preview, while the dedicated key transition area provides buttons for key snapshot store and recall operations.



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):

293 x 132 mm (3 RU) (11 5/8 x 5 1/4 inches)

MKS-8024A Flexipad Module

The Flexipad Module has 12 Memory Recall buttons, each with a three-color backlit LCD. These LCDs provide a text/graphic display showing the effects stored for each operational mode. This module is used in combination with Wipe and DME Wipe, and operations such as M/E or PGM/PST. It can also be used for Effects, Shot Box and Macros, and even has an undo capability.

Applicable Models

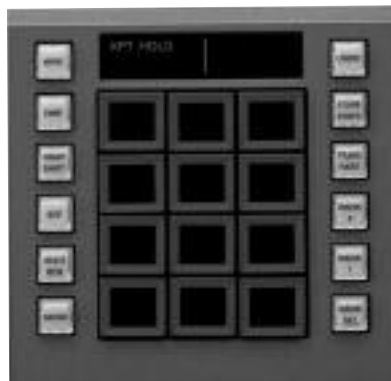
DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):

147 x 132 mm (3 RU) (5 7/8 x 5 1/4 inches)



MKS-8025MS Memory Stick /USB Module

The MKS-8025MS Memory Stick/USB module is used to store and load data such as snapshots, effects, set-up data, images, etc. from Memory Stick. It provides a slot for a Memory Stick and has three USB connectors. These connectors provide interfaces for other types of storage media and for menu operating devices such as a mouse, keyboard, and pen/tablet.

*The MKS-8025MS works exclusively with MKS-8010A System Control Unit

Specifications

General

Dimensions (W x H):

220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)

MKS-8026A 10 Keypad Module

The 10 keypad module is used to select, store, recall and execute snapshots or effects, and recall and execute Shot Box and Macros. It can also be used to input transition rates. It provides a 12-digit alphanumeric display to show reference region names plus register numbers, depending on its operational mode.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8027A Compact Transition Right Module

The compact 1/2 rack-width transition module fits in a small-scale control panel for edit suits require less space. The module is based on the design of the MKS-8020A Standard Transition Module with simple key transition operations.

Features

- *Size reduced to 1/2 rack-width to fit in a compact switcher system
- *Uses the same design as the MKS-8020A Standard Transition Module for common transition part
- *Key transition part consists of transition button
- *Using the MKS-8027A and MKS-8028A for adjacent M/Es, the fader levers do not interfere with each other

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8028A Compact Transition Left Module

The compact 1/2 rack-width transition module fits in a small-scale control panel for edit suits require less space. The module is based on the design of the MKS-8020A Standard Transition Module with simple key transition operations.

Features

- *Size reduced to 1/2 rack-width to fit in a compact switcher system
- *Uses the same design as the MKS-8020A Standard Transition Module for common transition part
- *Key transition part consists of transition button
- *Using the MKS-8027A and MKS-8028A for adjacent M/Es, the fader levers do not interfere with each other

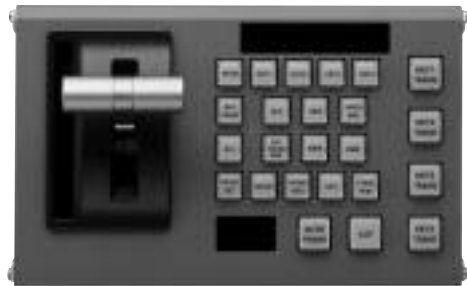
Applicable Models

DVS-9000 Production Switcher Processor
 DVS-9000SF Production Switcher Processor
 MVS-8000A Multi-Format Switcher Processor
 MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
 220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8030A Key Frame Module

The key frame module is used to set and edit keyframes and to execute effects. It consists of an effects execution block and a keyframe setting and editing block. The effects execution block is equipped with a fader lever for manual execution of effects.

Applicable Models

DVS-9000 Production Switcher Processor
 DVS-9000SF Production Switcher Processor
 MVS-8000A Multi-Format Switcher Processor
 MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
 220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8031AJS Joy Stick Module

The joy stick module has identical functionality and are used to position wipes, the 3D Transform of the DME, and also to control tape and disc recorder functions. The parameters of control knobs 1-3 on the main menu panel can also be adjusted using the joy stick.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):

220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8031ATB Track Ball Module

The track ball module has identical functionality and are used to position wipes, the 3D Transform of the DME, and also to control tape and disc recorder functions. The parameters of control knobs 1-3 on the main menu panel can also be adjusted using the track ball.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MKS-9011 1 M/E Control Panel
MKS-9012 2 M/E Control Panel

Specifications

General

Dimensions (W x H):

220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8032A DSK Fader Module

The DSK fader module is used to set up and execute transitions of the four keyers on the PGM/PST bank. A fader lever is included to execute manual transitions of one or more keyers.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MKS-9011 1 M/E Control Panel
MKS-9012 2 M/E Control Panel
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
220 x 132 mm (3RU) (8 3/4 x 5 1/4 inches)



MKS-8033A Utility/Shotbox Module

The 24 memory recall buttons of this module have three-color, backlit LCDs to display the selection of effects and functions in text or graphics. Any Shot Box or Macro, plus a variety of utility functions, can be allocated to the module and any of these preset effects and functions can be instantly executed at the press of a single button. The delegation of all 24 memory recall buttons can be collectively changed at any one time by pressing the bank buttons.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MKS-9011 1 M/E Control Panel
MKS-9012 2 M/E Control Panel
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8034ADK DSK/FTB Module

The DSK/FTB module is used to execute Fade-To-Black, and to conduct preview switching using the Edit Preview BUS. Control of externally connected DSKs (PFV-SP Series) is available from the DSK/FTB module.

Applicable Models

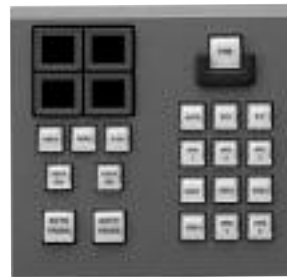
DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):

147 x 132 mm (3 RU) (5 7/8 x 5 1/4 inches)



MKS-8034AFB FTB Module

The FTB module is used to execute Fade-To-Black, and to conduct preview switching using the Edit Preview Bus. Control of externally connected DSKs (PFV-SP Series) is available from the DSK/FTB module.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor

Specifications

General

Dimensions (W x H):

147 x 132 mm (3 RU) (5 7/8 x 5 1/4 inches)



MKS-8035A Key Control Module

The key control module is used to adjust and modify each keyer on any of the M/E or PGM/PST banks. It is also used to assign the DME keyers. The DME allocation block not only displays the current status of the allocation of each DME channel or which key is on-air, but also outputs desired channels to monitors. It can also change the allocated channel to another keyer in a mandatory way.

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MKS-9011 1 M/E Control Panel
MKS-9012 2 M/E Control Panel
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):

220 x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8040A Blank Panel

Features

*1/3 rack width size blank panel

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):

147 x 132 mm (3 RU) (5 7/8 x 5 1/4 inches)



MKS-8041A Blank Panel

Features

*1/2 rack width size blank panel

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MKS-9011 1 M/E Control Panel
MKS-9012 2 M/E Control Panel
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):

220 mm x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)



MKS-8075 Extension Adaptor

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MKS-8010A System Control Unit
MKS-9011 1 M/E Control Panel
MKS-9012 2 M/E Control Panel
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):

220 mm x 132 mm (3 RU) (8 3/4 x 5 1/4 inches)

MKS-8076 Memory Card/USB Adaptor

Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MKS-8010A System Control Unit
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Specifications

General

Dimensions (W x H):
220 mm x 132 (3 RU) (8 3/4 x 5 1/4 inches)

MKS-8080 Aux Bus Remote Panel

Features

*Compact 1 RU design *Single destination *32 source select buttons and four re-entry buttons *Provides the same button arrangements as those on the CCP-8000/CCP-9000 Series Center Control Panel for intuitive operation



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Operational Manual (1)
T-Bridge and 75 Ω Terminator (1)

Specifications

General

Power requirements:
100 to 240 V AC, 50/60 Hz
Power consumption:
10 W
Operating temperature:
5 to 40 °C (41 to 104 °F)
Storage temperature:
- 20 to 60 °C (- 4 to 140 °F)
Operating humidity:
10 to 90%
Dimensions (W x H x D):
440 x 44 x 116.5 mm (17 3/8 x 1 3/4 x 4 5/8 inches)
Mass:
Approx. 1.4 kg (3 lb)

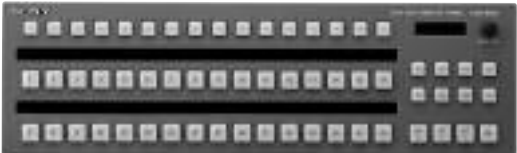
Remote

Remote 1 S-BUS
Connector type:
BNC connector (1)
Data transfer method:
BI-PHASE SPACE
Data transfer rate:
312 kb/s / 1250 kb/s
Remote 2 RS-422A
Connector type:
D-sub 9-pin female (1)
Data transfer method:
Conforming to the EIA RS-422A
Data transfer rate:
38.4 kb/s
Remote 3 RS-232C
Connector type:
D-sub 9-pin male (1)
Data transfer method:
8 bits, Non parity, No check
Data transfer rate:
38.4 kb/s
Signal transfer distance:
500 m (75 Ω coaxial cable, BELDEN 8281 or equivalent)

MKS-8082 Aux Bus Remote Panel

Features

*3 RU height *Assignable 16 delegation buttons for immediate access to multiple destinations *32 source select buttons and four re-entry buttons *Provides the same button sizes as those on the CCP-8000/CCP-9000 Series Center Control Panel to offer same touch and feel *Provides source name display



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Operational Manual (1)
T-Bridge and 75 Ω Terminator (1)

Specifications

General

Power requirements:
100 to 240 V AC, 50/60 Hz
Power consumption:
25 W
Operating temperature:
5 to 40 °C (41 to 104 °F)
Storage temperature:
- 20 to 60 °C (4 to 140 °F)
Operating humidity:
10 to 90%

Dimensions (W /H /D):
440 x 132 x 120 mm (17 3/8 x 5 1/4 x 4 3/4 inches)
Mass:
Approx. 2.6 kg (5 lb 12 oz)

Remote

Remote 1 S-BUS
Connector type:
BNC connector (1)
Data transfer method:
BI-PHASE SPACE
Data transfer rate:
312 kb/s / 1250 kb/s
Remote 2 RS-422A
Connector type:
D-sub 9-pin female (1)
Data transfer method:
Conforming to the EIA RS-422A
Data transfer rate:
38.4 kb/s
Remote 3 RS-232C
Connector type:
D-sub 9-pin male (1)

Data transfer method:
8 bits, Non parity, No check
Data transfer rate:
38.4 kb/s
Signal transfer distance:
500 m (75 Ω coaxial cable, BELDEN 8281 or equivalent)

MKS-9011A 1 M/E Control Panel

The MKS-9011A allows the configuration of a compact 1 ME switcher system that offers the operational convenience and system performance. This compact control panel is well suited for use in small OB VANS and edit suites or as sub remote panels for the MVS-8000/DVS-9000 Series switchers.

Features

*19-inch rack width with 1 M/E, 12 crosspoint buttons, source name display and 1 Key bus row * Built-in SCU (System Control Unit) *Can be used with the MVS-8000 /DVS-9000 Series switchers *Can be used as a sub M/E remote panel for the MVS-8000/DVS-9000 Series switchers



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Menu Panel Stand Brackets (1)
75 Ω terminator (1)
BNC T-bridge connector (1)
Panel Cable (D-sub 50-pin, 0.4 m) (1)
Switch cover (1)
Key top removing tool (1)
CD-R (*) (1)
Operation manual (1)
Installation manual (1)
Maintenance manual part I (1)

Optional Accessories

HK-PSU11 Redundant PSU
SWC-5002 Control Panel Cable
SWC-5005 Control Panel Cable
SWC-5010 Control Panel Cable

Optional Panels

MKS-8011A Menu Panel
MKS-8031ATB Track Ball Module
MKS-8032A DSK Fader Module
MKS-8033A Utility/Shotbox Module
MKS-8035A Key Control Module
MKS-8041A Blank Panel

Optional Peripherals

MKS-8075 Extension Adaptor

(*) Software and User's guide (E/J)

Specifications

General

Power requirement:
100 to 240 V AC, $\pm 10\%$ 50/60 Hz
Power consumption:
0.9 to 0.4 A
Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:
-20 °C to +60 °C (-4 °F to +140 °F)
Operating humidity:
10% to 90 % (Non-condensing)

Dimensions (W x H x D)

Main Panel:
440 x 175 x 386 mm
(17 3/8 x 7 x 15 1/4 inches)
Menu Panel:
424 x 220 x 46 mm
(16 3/4 x 8 3/4 x 1 13/16 inches)

Mass

Main Panel:
10 kg (22 lb)
Menu Panel:
2.2 kg (4 lb 13 oz)

Control

Control LAN:
RJ-45, 100Base-TX
Data LAN:
RJ-45, 100Base-TX
Peripheral LAN:
RJ-45, 100Base-TX
GPI:
D-SUB 25-pin, relay contact outputs x 4,
open collector outputs x 4
Remote:
BNC connector, S-BUS
Device:
USB type A
Main Panel:
D-sub 50-pin
Menu Panel:
D-sub 50-pin
Ext Panel:
D-sub 50-pin

MKS-9012A 2 M/E Control Panel

The MKS-9012A allows the configuration of a compact 2 M/E switcher system that offers the operational convenience and system performance. This compact control panel is well suited for use in small OB VANs and edit suites or as sub remote panels for the MVS-8000/DVS-9000 Series switchers.

Features

*19-inch rack width with 2 M/E, 12 crosspoint buttons, source name display and 1 Key bus row * Built-in SCU (System Control Unit) *Can be used with the MVS-8000 /DVS-9000 Series switchers *Can be used as a sub M/E remote panel for the MVS-8000/DVS-9000 Series switchers



Applicable Models

DVS-9000 Production Switcher Processor
DVS-9000SF Production Switcher Processor
MVS-8000A Multi-Format Switcher Processor
MVS-8000ASF Multi-Format Switcher Processor

Supplied Accessories

Menu Panel Stand Brackets (1)
75 Ω terminator (1)
BNC T-bridge connector (1)
Panel Cable (D-sub 50-pin, 0.4 m) (1)
Switch cover (1)
Key top removing tool (1)
CD-R (*) (1)
Operation manual (1)
Installation manual (1)
Maintenance manual part I (1)

Optional Accessories

HK-PSU11 Redundant PSU
SWC-5002 Control Panel Cable
SWC-5005 Control Panel Cable
SWC-5010 Control Panel Cable

Optional Panels

MKS-8011A Menu Panel
MKS-8031ATB Track Ball Module
MKS-8032A DSK Fader Module
MKS-8033A Utility/Shotbox Module
MKS-8035A Key Control Module
MKS-8041A Blank Panel

Optional Peripherals

MKS-8075 Extension Adaptor

(*) Software and User's guide (E/J)

Specifications

General

Power requirement:
100 to 240 V AC, $\pm 10\%$ 50/60 Hz
Power consumption:
0.9 to 0.4 A
Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:
-20 °C to +60 °C (-4 °F to +140 °F)
Operating humidity:
10% to 90 % (Non-condensing)

Dimensions (W x H x D)

Main Panel:
440 x 186.6 x 442 mm
(17 3/8 x 7 3/8 x 17 1/2 inches)
Menu Panel:
424 x 220 x 46 mm
(16 3/4 x 8 3/4 x 1 13/16 inches)

Mass

Main Panel
11.5 kg (25 lb 5 oz)
Menu Panel:
2.2 kg (4 lb 13 oz)

Control

Control LAN:
RJ-45, 100Base-TX
Data LAN:
RJ-45, 100Base-TX
Peripheral LAN:
RJ-45, 100Base-TX
GPI:
D-SUB 25-pin, relay contact outputs x 4,
open collector outputs x 4
Remote:
BNC type, S-BUS
Device:
USB type A
Main Panel:
D-sub 50-pin
Menu Panel:
D-sub 50-pin
Ext Panel:
D-sub 50-pin

SWC-5002 Control Panel Cable

Features

*50-pin *2 m *MKS-8010A <—> CCP-8000 Series,

MKS-8011A, external panel modules

*MKS-9011/9012 <—> MKS-8011A, external panel modules

Applicable Models

DVS-9000 Production Switcher Processor

DVS-9000SF Production Switcher Processor

MKS-8010A System Control Unit

MKS-9011 1 M/E Control Panel

MKS-9012 2 M/E Control Panel

SWC-5005 Control Panel Cable

Features

*50-pin *5 m *MKS-8010A <—> CCP-8000 Series,

MKS-8011A, external panel modules

*MKS-9011/9012 <—> MKS-8011A, external panel modules

Applicable Models

DVS-9000 Production Switcher Processor

DVS-9000SF Production Switcher Processor

MKS-8010A System Control Unit

MKS-9011 1 M/E Control Panel

MKS-9012 2 M/E Control Panel

MVS-8000A Multi-Format Switcher Processor

MVS-8000ASF Multi-Format Switcher Processor

SWC-5010 Control Panel Cable

Features

*50-pin *10 m *MKS-8010A <—> CCP-8000 Series,

MKS-8011A, external panel modules

*MKS-9011/9012 <—> MKS-8011A, external panel modules

Applicable Models

DVS-9000 Production Switcher Processor

DVS-9000SF Production Switcher Processor

MKS-8010A System Control Unit

MKS-9011 1 M/E Control Panel

MKS-9012 2 M/E Control Panel

MVS-8000A Multi-Format Switcher Processor

MVS-8000ASF Multi-Format Switcher Processor

MKS-2050 Editing Keyboard (MVS-8000A, DVS-9000, MFS-2000)

The MKS-2050 Editing Keyboard adds editing functions to the MVS-8000A series, the DVS-9000 series, and MFS-2000 production switcher systems by connecting the MKS-2050 to the MKS-8010A System Control Unit, the MKS-2010, the MKS-2015, or the MKS-2017 Control Panels. The MKS-8010A, the MKS-2010, the MKS-2015, and the MKS-2017 require the BZS-8050 Editing Control Software to be installed.

Supplied Accessories
User Guide (1)
15-pin 10m cable (1)

Optional Accessories
BZS-8050 Editing Control Software
(MVS-8000A, DVS-9000, MFS-2000)

MKS-8050 Editing Keyboard (MVS-8000A, DVS-9000, MFS-2000)

The MKS-8050 Editing Keyboard adds editing functions to the MVS-8000A series, the DVS-9000 series, and MFS-2000 production switcher systems by connecting the MKS-8050 to the MKS-8010A System Control Unit, the MKS-2010, the MKS-2015, or the MKS-2017 Control Panels. The MKS-8010A, the MKS-2010, the MKS-2015, and the MKS-2017 require BZS-8050 Editing Control Software to be installed. The MKS-8050 is a QWERTY keyboard.

Supplied Accessories
User Guide (1)
15-pin 10m cable (1)

Optional Accessories
BZS-8050 Editing Control Software (MVS-8000A,
DVS-9000, MFS-2000)

BZS-8050 Editing Control Software (MVS-8000A, DVS-9000, MFS-2000)

The BZS-8050 Editing Control Software adds editing functions to the MVS-8000A series, the DVS-9000 series, and MFS-2000 production switcher systems. The BZS-8050 requires to be installed to the MKS-8010A System Control Unit, the MKS-2010, the MKS-2015, or the MKS-2017 Control Panels. The MKS-8050 or the MKS-2050 Editing Keyboard is required.

Applicable Models
MKS-2050 Editing Keyboard (MVS-8000A,
DVS-9000, MFS-2000)
MKS-8050 Editing Keyboard (MVS-8000A,
DVS-9000, MFS-2000)

MFS-2000 Multi-Format Switcher Processor

The MFS-2000 is a 3RU high compact and low-cost multi-format switcher that is suitable for use in small-scale OB vehicles, production studios and editing suites.

Features

- *High performance compact multi-format switcher
- *Both multi-format and standard definition configurations are supported
- *A standard definition configuration can be upgraded to a multi-format system with minimal cost by upgrading the software
- *Useful preset effect patterns are provided as preset wipes and DME wipe patterns
- *The FlexiPad control panel enables operations such as Macro, M/E and Effect Snapshot
- *Color touch-screen LCD panel
- *Serial and parallel tally outputs
- *Both the control panel and switcher processor can be fitted with redundant power supply units
- *The optional 2-channel DME provides the following stunning effects: 2D/3D linear and nonlinear transforms, Digital SPARKLE, LIGHTING, SHADOW, TRAIL, Digital SKETCH, GLOW, and METAL
- *The optional frame memory can store a remarkable 435 frames of HD images or 2184 frames of SD images
- *Three types of control panels are provided; MKS-2010 1 M/E control panel, MKS-2015 1.5 M/E control panel, and MKS-2017 1.5 M/E wide control panel



Supplied Accessories

AC power cord (1)
Operation manual (1)

Optional Accessories

MKS-2110M Input/Output Connector Board (MFS-2000)
MKS-2440 Frame Memory Board Set (MFS-2000)
MKS-2470 DME Board Set
MKS-2700 Device Control Unit
HK-PSU01 Power Supply Unit
HK-PSU02 Power Supply Unit
HK-PSU11 Power Supply Unit (Control Panel)
MKS-2010 1 M/E Control Panel (MFS-2000)
MKS-2015 1.5 M/E Control Panel (MFS-2000)
MKS-2017 1.5 M/E Wide Control Panel (MFS-2000)

Specifications

General

Power requirements:
AC 100 V to 240 V $\pm 10\%$ 50/60 Hz
Power consumption:
4.5 to 2.1 A (fully loaded)
Operating temperature:
5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:
-20 °C to +60 °C (-4 °F to +140 °F)
Dimensions (W x H x D):
440 x 132.4 x 520 mm
(17 3/8 x 5 1/4 x 20 1/2 inches)
Mass:
22 kg (48 lb 8 oz, fully loaded)

Input/output connectors

Primary inputs:
Max. 16, BNC x 1 each
SMPTE292M (HDTV), SMPTE259-C (SDTV)

SDI video outputs:

Max. 8, BNC x 2 each
SMPTE292M (HDTV), SMPTE259-C (SDTV)

Reference inputs:

BNC x 2, 75 Ω with loop-through
HDTV system: HD tri-level sync, Analog black burst, or analog sync
SDTV system: Analog black burst or analog sync

Reference output:

BNC x 1, 75 Ω
HDTV system: HD tri-level sync
SDTV system: Analog sync

Control signals

Switcher interface:

Control LAN: RJ-45 x 1, 100BASE-TX
Data LAN: RJ-45 x 1, 100BASE-TX

DME interface:

Control LAN: RJ-45 x 1, 100BASE-TX
Data LAN: RJ-45 x 1, 100BASE-TX

GPI:

D-sub 25-pin (female) x 1, TTL level inputs x 8,
Relay contact outputs x 4, Open collector outputs x 4

Tally:

D-sub 25-pin (female) x 1, Relay contact outputs x 4, Open collector outputs x 4

Serial tally:

D-sub 9-pin (female) x 1, RS-422A

HK-PSU11 Power Supply Unit (Control Panel)

Redundant power supply unit for Control Panel Unit that can be used as second power supply unit for the MKS-2010, MKS-2015, and MKS-2017 Control Panels.

Applicable Models

MFS-2000 Multi-Format Switcher Processor
MKS-2010 1 M/E Control Panel (MFS-2000)
MKS-2015 1.5 M/E Control Panel (MFS-2000)
MKS-2017 1.5 M/E Wide Control Panel (MFS-2000)

Supplied Accessories

Installation Guide (1) (1)

Specifications

General

Operating temperature:
5 to 40 °C (41 to 104 °F)
Storage temperature:
- 20 to 60 °C (- 4 to 140 °F)
Operating humidity:
10% to 90% (nocondensation)

MKS-2010 1 M/E Control Panel (MFS-2000)

The MKS-2010 is a compact 1 M/E Control Panel which is 19 inches in width and offers 12-crosspoint buttons. Its FlexiPad control panel is equipped with color LCD buttons that indicate assigned functions to give users extremely intuitive operation. An easy-to-use color touch-screen LCD panel provides users with effective and straightforward menu control.

Applicable Models

MFS-2000 Multi-Format Switcher Processor

Optional Accessories

HK-PSU11 Power Supply Unit (Control Panel)

Specifications

General

Power consumption:

1.0 to 0.5 A

Operating temperature:

5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:

-20 °C to +60 °C (-4 °F to +140 °F)

Operation humidity:

10% to 90% RH

Dimensions (W x H x D):

440 x 167.5 x 353.9 mm (17 3/8 x 6 5/8 x 14 inches)

Mass:

10.3 kg (22 lb 11 oz)

Input/output connectors

Reference inputs

BNC connector x 2, 75Ω with

loop-through

HDTV system: HD tri-level sync, Analog

black burst, or analog sync

SDTV system: Analog black burst or

analog sync

Ext display output:

Mini D-sub 15-pin x 1, Analog RGB interface

Control signals

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

Device:

USB type A x 1, compliance with USB 1.1

Remote:

BNC connector x 1, S-BUS

GPI:

D-sub 25-pin (female) x 1, TTL level inputs x 8, Relay contact outputs x 4, Open collector outputs x 4



MKS-2015 1.5 M/E Control Panel (MFS-2000)

The MKS-2015 is a compact 1.5 M/E Control Panel which is 19 inches in width and offers 12-crosspoint buttons. Its FlexiPad control panel is equipped with color LCD buttons that indicate assigned functions to give users extremely intuitive operation. An easy-to-use color touch-screen LCD panel provides users with effective and straightforward menu control.

Applicable Models

MFS-2000 Multi-Format Switcher Processor

Optional Accessories

HK-PSU11 Power Supply Unit (Control Panel)

Specifications

General

Power consumption:

1.0 to 0.5 A

Operating temperature:

5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:

-20 °C to +60 °C (-4 °F to +140 °F)

Operation humidity:

10% to 90% RH

Dimensions (W x H x D):

440 x 167.5 x 448.1 mm (17 3/8 x 6 5/8 x 17 3/4 inches)

Mass:

11.3 kg (24 lb 15 oz)

Input/output connectors

Reference inputs

BNC type x 2, 75Ω with loop-through

HDTV system: HD tri-level sync, Analog black burst, or analog sync

SDTV system: Analog black burst or analog sync

Ext display output:

Mini D-sub 15-pin x 1, Analog RGB interface

Control signals

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

Device:

USB type A x 1, compliance with USB 1.1

Remote:

BNC connector x 1, S-BUS

GPI:

D-sub 25-pin (female) x 1, TTL level inputs x 8, Relay contact outputs x 4, Open collector outputs x 4



MKS-2017 1.5 M/E Wide Control Panel (MFS-2000)

The MKS-2017 is a compact 1.5 M/E Wide Control Panel which is 576-mm width and offers 20-crosspoint buttons. Its FlexiPad control panel is equipped with color LCD buttons that indicate assigned functions to give users extremely intuitive operation. An easy-to-use color touch-screen LCD panel provides users with effective and straightforward menu control.

Applicable Models

MFS-2000 Multi-Format Switcher Processor

Optional Accessories

HK-PSU11 Power Supply Unit (Control Panel)

Specifications

General

Power consumption:

1.0 to 0.6 A

Operating temperature:

5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:

-20 °C to +60 °C (-4 °F to +140 °F)

Operation humidity:

10% to 90% RH

Dimensions (W x H x D):

576 x 167.5 x 448.1 mm (22 3/4 x 6 5/8 x 17 3/4 inches)

Mass:

12.6 kg (27 lb 12 oz)

Input/output connectors

Reference inputs

BNC type x 2, 75Ω with loop-through

HDTV system: HD tri-level sync, Analog black burst, or analog sync

SDTV system: Analog black burst or analog sync

Ext display output:

Mini D-sub 15-pin x 1, Analog RGB interface

Control signals

Control LAN:

RJ-45 x 1, 100BASE-TX

Data LAN:

RJ-45 x 1, 100BASE-TX

Peripheral LAN:

RJ-45 x 1, 100BASE-TX

Device:

USB type A x 1, compliance with USB 1.1

Remote:

BNC connector x 1, S-BUS

GPI:

D-sub 25-pin (female) x 1, TTL level inputs x 8, Relay contact outputs x 4, Open collector outputs x 4



MKS-2110M Input/Output Connector Board (MFS-2000)

The optional MKS-2110M Input/Output Connector Board provides 8 SDI input connectors and 4 SDI output connectors to the MFS-2000 Series Multi-Format Switchers.

Applicable Models

MFS-2000 Multi-Format Switcher Processor

Specifications

Input/output connectors

SDI video inputs:

Max.8, BNC connector x1 each

SMPTE292M(HDTV), SMPTE259-C(SDTV)

SDI video outputs:

Max.4, BNC connector x2 each

SMPTE292M(HDTV), SMPTE259-C(SDTV)

MKS-2420M Color Corrector Board

*Optional MKS-2440 board is required

Applicable Models

MFS-2000 Multi-Format Switcher Processor

MKS-2440 Frame Memory Board Set (MFS-2000)

The MKS-2440 Frame Memory Board Set provides powerful 6-channel frame memory with animation capability to the MFS-2000 Series Multi-Format Switchers. The MKS-2440 offers two channel-source busses and six channel outputs with re-position capability. The frame memory stores 435 frames of HD images which translates into approximately 15 seconds at 1080/59.94i, or 2184 frames of SD images which translates into approximately 73 seconds at 480i/59.94.

Applicable Models

MFS-2000 Multi-Format Switcher Processor

Specifications

Control signals

Image file LAN:

RJ-45 x 1, 100BASE-TX

Device:

IEEE1394 6-pin x 1

MKS-2470 DME Board Set

The MKS-2470 DME Board Set provides state-of-the-art integrated 2-channel effects as preset DME patterns to the MFS-2000 Series Multi-Format Switchers. The MKS-2470 provides the following stunning effects: 2D/3D linear and nonlinear transforms, Digital SPARKLE, LIGHTING, SHADOW, TRAIL, Digital SKETCH, GLOW, and METAL.

Applicable Models

MFS-2000 Multi-Format Switcher Processor

BZS-2000M Upgrade Software from SD to Multi Format Configuration

Applicable Models
MFS-2000 Multi-Format Switcher Processor

BZS-2470M DME Upgrade Software from SD to Multi Format Configuration

Applicable Models
MFS-2000 Multi-Format Switcher Processor

BZS-2440M Upgrade Software from SD to Multi Format Configuration

Applicable Models
MFS-2000 Multi-Format Switcher Processor

AWS-G500 Live Content Producer

Features

The Anycast Station is an all-in-one content creation tool designed for large projection applications such as church productions, product promotions, event and live staging, music clip creation, conferences, seminars, and distance learning *It comprises a high-quality video switcher, an audio mixer, a large LCD display, and a streaming encoder and server - all packed into an attache case size chassis weighing only about 15 lb. (7 kg) *The video switcher provides 4:2:2 8-bit processing, 6 primary inputs plus one still picture source, 1 ME with 1 keyer (selectable between Linear Key/Luminance Key/Chrominance Key) and 1 DSK with 1 fixed station logo *The audio mixer provides 48 kHz/24-bit processing, 6 stereo channel input mixing, 6 channel faders and 1 master fader *High-resolution (1280 x 1024 pixel) internal processing for seamless switching between video and PC sources *Versatile input/output (Input: Composite, S-Video, DV, and RGB/ Output: Composite, S-Video, RGB) *VISCA control functions for compatible Sony Pan/Tilt/Zoom cameras *A large LCD screen for PGM and PVW monitoring, plus 7 windows for input source and one internal still picture source monitoring *Built-in streaming encoder and streaming server function (optional feature) *Easy operation with one integrated control panel and the multi-window LCD *Multi-camera recording for convenient nonlinear editing.



Supplied Accessories

Installation Guide (1)
Pin to BNC Connector (4)

Optional Accessories

BZAW-500 Keyboard / Software Kit
BKAW-550 PC Video Interface Module
BKAW-570 SD Video Interface Module

Specifications

- General -

Model
AWS-G500
Power Requirements
AC 100-240 V, 50/60 Hz
Operating Voltage
AC 90-260 V, 47/63 Hz
Power Consumption
160 W
Operating Temperature
0 to 40 °C (32 to 104 °F)
Dimensions (W x H x D)
424 x 114 x 354 mm
Mass
Approximately 7.0 kg (15 lb 7 oz)

- Video Signals -

VIDEO INPUTS (in exfactory configuration)

Composite
BNC Type x 4
Video: 1.0 Vp-p, 75 Ω, Sync negative

S-Video

DIN Type x 4
Y: 1.0 Vp-p, 75 Ω, Sync negative
C: 0.286 Vp-p at burst, 75 Ω (System Mode 59.94 Hz)
C: 0.3 Vp-p at burst, 75 Ω (System Mode 50 Hz)

DV

IEEE 1394 4-pin Type x 4
IEC 61883-2 equiv.

RGB

D-Sub Shrinked 15-pin Type x 2 (Female)
XGA, SXGA

VIDEO OUTPUTS

Composite
BNC Type x 1
Video: 1.0 Vp-p, 75 Ω, Sync negative

S-Video

DIN Type x 1
Y: 1.0 Vp-p, 75 Ω, Sync negative
C: 0.286 Vp-p at burst, 75 Ω (59.94 Hz)
C: 0.3 Vp-p at burst, 75 Ω (50 Hz)

RGB

Extended D-Sub 15-pin Type x 2 (Female)
XGA, SXGA

BB OUT

BNC Type x 2
Sync: 0.286 Vp-p, 75 Ω, Sync negative (59.94 Hz)
Sync: 0.3 Vp-p, 75 Ω, Sync negative (50 Hz)
C: 0.286 Vp-p at burst, 75 Ω (59.94 Hz)
C: 0.3 Vp-p at burst, 75 Ω (50 Hz)

Recorder Port

HDD/DV

i.LINK: IEEE 1394 6-pin Type x 2
(in exfactory configuration)

HDD IF: SBP2

- Audio Signals -

AUDIO INPUTS

Analog Inputs 1-2

XLR/TRS Combo Type x 2
Ref. Level: +4 dBu, -20 dBu, -44 dBu
Mic. Power: +48 V

Analog Inputs 3-6

TRS Type x 4 / Ref. Level: +4 dBu, -20 dBu, -44 dBu

Analog Inputs 7-8

Pin x 2 / Ref. Level: -10 dBs

AUDIO OUTPUTS

PGM OUT

TRS Type x 2 / Ref.: +4 dBu / Impedance: 150 Ω

MIX OUT

Pin Type x 2 / Ref.: -10 dBs / Impedance: 10 kΩ

AUX OUT

TRS Type x 2 / Ref.: +4 dBu / Impedance: 150 Ω

MONITOR OUT

TRS Type x 2 / Ref.: +4 dBu / Impedance: 150 Ω

HEADPHONES

1/4 inches Stereo Phone Jack Type x 2
70 mW x 2 / Impedance: 47 Ω

INTERCOM

D-Sub 9-pin Type (Female) / Original Parallel I/O

- Other Interfaces -

NETWORK

RJ-45 Type x 1, 10/100base-TX

USB1.1

USB A Type x 2, USB1.1 equiv.

RGB(GUI)

D-Sub Shrinked 15-pin (Female), 1280 x 800, 60 Hz

REMOTE

D-Sub 9-pin (Male), RS-232C

FACTORY USE

D-Sub 15-pin (Male), Original Parallel I/O

MEMORY STICK

Memory Stick TM Slot

*Memory Stick Pro is not supported.

VISCA

DIN 8-pin Type x1

Supports Sony VISCA camera commands.

LCD

15.4" High Brightness LCD, 1280 x 800, 60 Hz

Speaker

Built-In Speaker x 2, Size: 20 x 40 mm

BKAW-550 PC Video Interface Module

Applicable Models

AWS-G500 Live Content Producer

Specifications

RGB

D-sub Shrunk 15-pin Type x 2 (Female),
XGA, SXGA



BKAW-570 SD Video Interface Module

Applicable Models

AWS-G500 Live Content Producer

Specifications

Composite

BNC Type x 2

Video: 1.0 Vp-p, 75 Ω , Sync negative

S-Video

DIN Type x 2

Y: 1.0 Vp-p, 75 Ω , Sync negative

C: 0.286 Vp-p at burst, 75 Ω , (System
Mode 59.94 Hz)

C: 0.3 Vp-p at burst, 75 Ω , (System Mode
50 Hz)

DV

IEEE 1394 4-pin Type x 2

IEC 61883-2 equiv.

HDD/DV

I.LINK: IEEE 1394 6-pin Type x 2

HDD IF: SBP2



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Ziris Create

BZSQ-CREATE 10

Ziris Create Software License

BZSQ-CREATE DV1

Additional Single Ziris Create
device License

BZSQ-CREATE DV10

Additional Ziris Create 10 device
licenses

Features

Ziris Create has three core functions;

- To able content ingest
- To able user content file management
- To able content play list and schedule authoring.

Ziris Create takes a simple concept of an Administrator and an Author, and brings them to an IP content authoring, publishing & distribution environment. Both Administrator and Author function work together to develop collections of content and deliver them to a distributed network of devices for play out.

The Administrator function allows the user to allocate access privileges and define further User/Author roles. The Administrator function also allows the user to create groups of terminals to which similar content can be developed and delivered. In this way a Group could be all terminals within a retail complex, or all terminals within specific retail areas. Groups are defined on a user basis and in line with the users needs.

The Author function allows users to pull together content from different sources into a single collection. The media within a collection can then be customised with text and graphics. Text can be formatted in terms of font, position, colour size etc and graphics added and positioned for maximum effect within the media.

The whole process is simple to understand and complete. Users simply drag and drop content to a timeline and much like basic editing software, define the times at which graphics and text should appear. Sophisticated media content can be created easily by combining graphics, media and text.

Once created the item is validated i.e. checked for continuity, and consistency and a play out timeline is created for the group of devices. The Author collates media content to the timeline to create a play out schedule. The play out schedule is then uploaded to the remote play out devices manually, automatically, or at a predefined time. The system provides an effective colour-coding scheme to show the stage of the upload process, and whether ultimately, it has been successful.



Core Application Features

- Web Infrastructure – can be used local (on PC) and Remote (Server)
- Secure Account Login and User Account Management
- Software Licensing by number of devices
- Multi-Language Support (requires translation)
- Dual screen support Official release: April 2005

Content Ingest

- Importing of content into flexible directory structure
- Manual or automatic 'hot folder' imports
- Automatic format conversion to NSP-100 file format

Scheduling

- Drag-and-drop on to channel timeline for scheduling single playlists
- Scheduled or Immediate playout (NSP) and Default playlists
- Campaign scheduling wizard for scheduling daily playout between a start and end date, across multiple channels. Can also select days of the week.

Content Management

- Management of video, images, text and playlists in folders
- Export of content and playlists
- Export of Ziris-View playlist into MOV video file

Playlist Authoring

- Playlist authoring for a large variety of screen formats, sizes and orientations (including portrait and widescreen)
- Support for multiple network player types:
 - NSP-100
 - NSP-1
 - BZSQ-View Lt Ziris View (PC Solution)
 - BZSQ-View 500 Ziris View (PC Solution)
- Automatic playlist creation for simple presentations
- WYSIWYG Layout and text editors for creating and previewing custom designs
- Ability to combine playlists
- Portrait mode playlist creation for NSP-1 and Ziris-View

Channel Management

- Grouping of devices into channels to facilitate scheduling and upload to multiple devices
- Single click upgrade to Ziris Transfer

Content Upload

- Simple upload option for transferring content and schedules to devices (either directly or through Ziris-Transfer)
- Colour-coding scheme on timeline for displaying upload status
- Batch upload using scheduling wizard, with detailed status reporting

Dynamic Content Management

- Dynamic Pull – HTML support for Ziris-View and NSP-1
- Identification of Live Video Input for NSP-1 in Video Layer
- Dynamic Push – Local 'Hot-Folder' dynamic text support for Ziris View
- Push based MPEG-4 Video Streaming for Ziris-View & NSP-1 (allow authoring of playlists to reference video server)

System Requirements

Intel P4 2,8GHz, 1GB DDR, 120GB HDD, Windows XP Professional.

Monitor 1024 x 768 resolution, true colour

Ziris Transfer

BZSQ-TFR FTP 50

Features

Ziris Transfer provides File transfer over 'reliable' distribution networks such as simple LAN. (FTP). These are typically IT infrastructure solutions that are framed around the more efficient use of the TCP network protocol for massive file distribution to many points. The general file transfer technologies have an advantage as they provide simple integration into existing IT networks, but at the cost of a less efficient method of distributing content for large numbers of receivers. The standard File Transfer Protocol is the most well known and most widely implemented approach as it is free (in terms of knowledge and technology) but does have a cost associated in terms of performance, efficiency and cost of development to make reliable.

Core Application Features

- Web Infrastructure – can be used local (on PC) and Remote (Server)
- Secure Account Login and User Account Management
- Software Licensing by number of devices
- Multi-Language Support

Transfer Status Monitoring

- Dynamically updates transfer status

FTP and Multicast Transfer

- Unicast FTP or Multicast using Shrimp FEC technology
- Transfer immediately or within a time window

Configuration

- Zero Device Configuration (handled in Ziris-Create)

FTP Transfer

- FTP Transfer to channels defined in Ziris Create
- No additional channel configuration required in Ziris Transfer
- Automatic retry of failed transmissions
- Transfer immediately or during time window

System Requirements

Intel P4 2,8GHz, 512MB DDR, 80GB HDD, Windows XP Professional.

Monitor 1024 x 768 resolution, true colour



Transfer Status Monitoring

- Dynamic status updates on all transfers
- Search transfers according to status, job name, destination, device name and date
- Fine tune settings: record archive period and content deletion

Status in Ziris Manage

- Updates Ziris Manage with status from Ziris Transfer
- Number of failed transfers

HTTP Upload Support

- NSP1 support for HTTP upload

Ziris Manage

BZSQ-MANAGE 10

Ziris Manage Software License

BZSQ-MANAGE DV1

Additional Single Ziris Manage device License

BZSQ-MANAGE DV10

Additional Ziris Manage 10-device licenses



Features

Ziris Manage is a device management and monitoring software. It monitors play out devices such as the NSP-Series and Ziris View to report and provide a live status of their condition, including 'As Run' logs, device reporting, configuration, status, logging etc. Other devices it is able to monitor and manage include plasma's and LCD displays and projectors.

Core Application Features

- Web Infrastructure – can be used local (on PC) and Remote (Server)
- Secure Account Login and User Account Management
- Software Licensing by number of devices
- Multi-Language Support

Configuration

- Registration and management of devices for monitoring
- Screens and network players can be monitored in groups or individually.
- Configuration of device parameters – NSP-1, NSP-100

Status

- Real-time status reporting for digital signage devices, Ziris-View, NSP-1, NSP-1, Sony Network Projector
- Indicates whether network players, plasmas, monitors and projectors are switched on
- Displays current media playout information, download status and remaining disc space for network players
- Alerts of any errors

System Requirements

Intel P4 2.8GHz, 512MB DDR, 80GB HDD, Windows XP Professional.

Monitor 1024 x 768 resolution, true colour

Logging

- Maintains details of registered playout devices and their associated displays

Firmware Upgrade

- Upgrade of device firmware for one or many NSP-1, NSP-100
- Immediate or scheduled upgrade

Remote Device Control

- Can schedule reboot and sleep times for NSP-1, NSP-100
- Can switch input channels, switch on/off through RS232 of playout device
- Schedule reboot and sleep times for Ziris View
- Control and status viewing of Scion video switches

Ziris Transfer Integration

- Ziris Transfer status indication within device tree

Viewing Content Store on Devices

- View of Media/content on play out device (no modification of data will be possible)
- Error Notification
- SMS or E-mail notification of error status

Ziris View

BZSQ-VIEW LT

4 layer, Play-out Application Software

BZSQ-VIEW 500

10 layer, Payout Application Software

Features

Ziris View is a software application that is designed to turn a standard PC into a playout unit for Digital Signage applications. Ziris View will manage the playout of video, audio and graphically content, as described by a play-list and is analogous to the Sony NSP-1 playout server. The Ziris View player software supports the same basic functions and features when compared to dedicated players

however it can provide a number of operational features that will give users business advantages. These include high quality graphical output display, providing in addition to video, real time information, it is particularly versatile of formats and remains very flexible dependant on customer requirements.

Multi layer PC based playout device

- Up to 10 layers
- Two versions – Lite (4 layers), 500 (10 layers)
- Scheduled or default content
- Flexible format support, including:
mov,mpg,avi,flash,bmp,jpg,gif
- Portrait mode

Dynamic Pull (HTML) - BZSQ-VIEW 500 only

- View pulls HTML content from remote URL
- Configurable refresh rate

Dynamic Push - BZSQ-VIEW 500 only

- Dynamic update of text within a playlist

Live Video Input - BZSQ-VIEW 500 only

- Input through specified video input card

Integration with Ziris Manage

- Current status
- As run logs collection

Display Control

- Controls plasma via RS232: power, volume & input
- Supports the following Sony displays including:
Plasma: FWD-50PX1, PFM-42X1N , PFM-42V1 and FWD-42PV
LCD : FWD-42LX1 and FWD-32LX1

This list continues to change as new models are introduced

Remote reboot

- View PC can be rebooted remotely via Ziris Manage

System Requirements

Operating System

Microsoft® Windows® XP SP2 or MAC OS 10.43 G4

Specification 1

Operating System

Microsoft® Windows® XP SP2

HDD

80 GB Minimum 7200 RPM

RAM

512 MB Minimum

Graphics Card

Minimum XGA (1024 x 768), WXGA if 16:9 Displays are used, Capable of true colour (32 Bit), 64 MB Minimum Graphics Memory,

Intel Graphics Media Accelerator 900 or 950

ATI RADEON™ chipset graphics card

PCIe or AGP adapter type

64MB minimum graphics memory
such as X300, X600, X700, X800

Software Environment

Intel® Pentium® 4 or Intel Celeron, Non Hyper Threaded

3.0 GHz min

QuickTime 6.5 Player

QuickTime MPEG2 Support

Java™ 2 SDK 1.4.2

Network Connection

Specification 2

Operating System

MAC OS 10.43 G4

HDD

80 GB Minimum

RAM

512 MB Minimum

1.42GHz Power PC min

QuickTime 6.5 Player

QuickTime MPEG2 Support

Java™ 2 SDK 1.4.2

Network Connection

NSP-1 Network Player

Features

The NSP-1 provides local storage and playout within Digital Signage applications and manages the presentation of up to five simultaneous image layers, including graphics, video, text and Flash content. For added flexibility, video can be played out from the hard drive of the NSP-1 or merged with other content layers from an external video feed. An audio channel can be used for background music or narration in addition to the video soundtrack. Its flexibility, video output quality, compact size and reliability ensures peace of mind when deployed in mission critical environments.

High Quality Graphics and Text

The NSP-1 supports a variety of graphics formats including full colour bitmaps (.bmp) as well as JPEG, Macromedia Flash™ and HTML. Small bitmap images such as logos can be positioned anywhere within the display area. Text can be specified in any colour and position on screen, with optional scrolling or flashing effects added as required.

Excellent Video Quality

High bit rate MPEG-2 compression ensures clear, true-to-life DVD quality video images.

Portrait Mode

Content can be presented in a choice of portrait or landscape modes to suit display orientation.

Selectable Output Resolution and Aspect Ratio

Supplied Accessories

AC adapter and AC cable
Stand for desktop mounting in vertical position
Operation manual (downloadable from the NSP-1 HDD)

Optional Software

Ziris Create, File Management, Authoring and Scheduling Software
Ziris Transfer, Content distribution Software
Ziris Manage, Play-out Device and Display Management software

Specifications

General

Dimensions (W x H x D):

210 x 44 x 167 mm (8 3/8 x 1 3/4 x 6 5/8 inches)

Mass:

Approx. 1.5 kg (3 lb 1 oz)

Power:

Power consumption; Approx. 45 W

Power supply: DC 13.5 V provided from an AC adapter

Operating temperature +5 to +40°C (+42 to +104°F)

Storage temperature -20 to +55°C (-4 to +131°F)

Hard Disc Drive:

40 GB

Output (Media Formats)

MPEG-2 Video:

MPEG-2 MP@ML, 4.0 Mb/s - 9.0 Mb/s

Audio:

MPEG-1 Audio Layer II 2 channels (fixed), 256 kb/s, 48 kHz

Graphics:

Bitmap (.bmp), JPEG (.jpg), FLASH (.swf), HTML (.htm or .html)

Text:

Bitmap (.bmp), Text (.txt)



Output image resolution and aspect ratios can be specified as:

- 4:3 RGB: VGA, SVGA, XGA
- 16:9 RGB: WVGA
- Composite Video: NTSC, PAL

Dedicated Audio Track

The dedicated audio track is ideal for adding background music or narration to accompany video and other graphic presentation elements.

Browser-Based Remote Setting & Scheduling

NSP-1 functions can be controlled via a connected PC and web browser.

Audio:

Linear Audio (.wav), MP3 (.mp3)

A/V In NTSC, PAL, Stereo Audio

Output (Screen Image)

Analogue:

RGB VGA (640 x 480 pixels), WVGA (848 x 480 pixels),

SVGA (800 x 600 pixels), XGA (1024 x 768 pixels)

Composite Video*:

NTSC (720 x 480 pixels), PAL (720 x 576 pixels)

Screen:

Rotation Landscape, Portrait (+90°, -90°)

Interface

Video OUT:

Analogue RGB, HD D-sub 15-pin (female) x1, Composite (RCA phono type x1)

Audio OUT:

Stereo RCA phono type x2, analogue unbalanced

Video IN:

Composite (RCA phono type x1)

Audio IN:

Stereo RCA phono type x2, analogue unbalanced

Network:

10/100Base-T Ethernet, RJ-45 modular jack x1

PCMCIA Type II x1

USB USB 1.1 x2

Serial RS-232C, D-sub 9-pin (male) x1,

GPI D-Sub 25-pin (female) x1

Operating System and Network:

Operating system Linux

Supporting protocols:

TCP/IP, HTTP

SONY

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BVM-A32E1WM Color Video Monitor

Features

32-inch Broadcast color video monitor *Flat surface HR Trinitron CRT provides high resolution of 1000 TV lines
 *EBU standard phosphors *Beam current feedback circuit for stable color reproduction *Separate monitor control unit * Multi-format signal support *Dual link HD-SDI
 *Modular slot design for optional input board (BKM-61D/62HS/68X) *Auto white balance *Auto matrix selection *Auto Chroma phase *Beam landing correction
 *Digital Uniformity *Digital convergence *Aspect ratio 4:3 and 16:9 switchable *Memory stick for storage and recall of monitor set-up data *Built-in test signal generator
 *H/V delay function *External sync *Auto and manual degaussing *Various area markers *Parallel and Ethernet based remote control *SNMP remote maintenance

* 29 5/8 inches viewable area, measured diagonally.



Supplied Accessories

4:3 Mask
 AC cable
 AC plug holder
 Tally label
 Operation manual

Optional Accessories

BKM-15R Central control unit
 Memory stick
 BKM-14L Auto Set-up Probe
 BKM-61D SD-SDI Multi analogue board
 BKM-62HS HD/SD-SDI board
 BKM-68X RGB/Component board
 SMF-700 Monitor interface cable

Specifications

General

Signal format
 15.625 kHz to 45 kHz
 Type
 Display unit
 Power requirements
 100 V to 240 V AC \pm 10%, 50/60Hz
 Power consumption
 approx. 235 W (with Option board: Max.)
 Dimensions (W x H x D)
 794.0 X 555.4 X 694.0 (mm)
 31 3/8 x 21 7/8 x 26 (inch)
 Mass approx.
 96 kg / (211 lb 10 oz)
 CRT
 CRT type
 32-inch HR Trinitron
 (flat surface, 16:9 aspect)
 AG pitch
 0.32–0.36mm, 90 ° deflection,
 Ø29.1 mm in-line gun
 Visual screen (Viewable area, measured diagonally) W x H (Diagonal)
 4:3 491.3 x 368.5 mm, (614.1 mm)
 4:3 19 3/8 x 14 5/8 inch, (24 1/4 inch)
 16:9 655.2 x 368.5 mm, (751.7 mm)
 16:9 25 7/8 x 14 5/8 inch, (29 5/8 inch)
 Phosphor
 SMPTE-C/EBU

Control

LAN
 Ethernet (10 BASE-T/100 BASE-TX),
 RJ-45 x1
 Parallel remote
 D-sub 9-pin x 1 (Short to ground)
 Option
 RS-232C serial interface,
 Mini DIN 8-pin x 1

Video Signal Performance

Differential gain (DG)
 Within 5% for luminance from
 0 to 70 cd/m2
 Differential phase (DP)
 Within 5° for luminance from 0 to 70 cd/m2
 Frequency response
 48 Hz to 30 MHz +1dB/-3 dB
 DC restoration
 Back porch type, back porch level:
 within 1% of peak luminance,
 10 to 90% APL

Synchronisation

Retrace
 Horizontal
 under 3.77 μ sec
 time
 Vertical
 under 650 μ sec

Raster and Picture Performance

Normal scan
 5% over scan of the effective picture area
 Under scan
 3% under scan of the effective picture area
 Linearity
 Less than 1% within circle centered on the
 screen with a diameter equal to the vertical
 height, 2% at any other point*
 Colour temperature
 D65 / D93 / D56 / USER1-5
 (User adjustable)
 Convergence
 Less than 0.5mm within circle centered on
 the screen with a diameter equal to the
 vertical height, 0.8 mm at any other point
 Preset brightness
 70 cd/m2 (when a 1.0 Vp-p
 100% white signal is input)

Stability of raster size

1% of picture height (at 70 cd/au peak
 luminescence, 10 to 90 % APL)

Scan delay

Horizontal
 Approx. 2/9 line
 Vertical
 Approx. 1/2 field

Resolution (Centre)

16:9: 1000 TV lines, 4:3 1000 TV lines

Operating Conditions

Operating temperature
 0 to 35 °C, Optimum operating range
 20 to 30 °C
 Storage temperature
 -10 to 40 °C
 Humidity
 30 to 90 % (no condensation)

Inputs/outputs

BVM-A20F1M Color Video Monitor

Features

20-inch Broadcast color video monitor *Flat surface HR Trinitron CRT provides high resolution of 900 TV lines *EBU standard phosphors *Beam current feedback circuit for stable color reproduction *Separate monitor control unit *Multi-format signal support *Dual link HD-SDI *Modular slot design for optional input board (BKM-61D/62HS/68X) *Auto white balance *Auto matrix selection *Auto Chroma phase *Digital Uniformity *Aspect ratio 4:3 and 16:9 switchable *Memory stick for storage and recall of monitor set-up data *Built-in test signal generator *H/V delay function *External sync *Auto and manual degaussing *Various area markers *Parallel and Ethernet based remote control *SNMP remote maintenance *19-inch EIA optional rack mount

* 19 inches viewable area, measured diagonally.



Supplied Accessories

4:3 Mask
AC cable
AC plug holder
Tally label
Operation manual

Optional Accessories

BKM-15R Central control unit
Memory stick
BKM-14L Auto Set-up Probe
BKM-35H Control unit attachment kit for BKM-15R with 20-inch monitor
BKM-61D SD-SDI, Multi analogue board
BKM-62HS HD/SD-SDI board
BKM-68X RGB/component board
SMF-700 Monitor interface cable

Specifications

General

Signal format
15.625 kHz to 45 kHz
Type
Display unit
Power requirements
100 V to 240 V AC \pm 10%, 50/60Hz
Power consumption
200 W (with Option board; Max.)
Dimensions (W x H x D)
444 X 414 X 570 (mm)
17 3/8 x 16 3/8 x 22 1/2 (inch)
Mass approx.
40 kg / (88 lb 3 oz)
CRT
CRT type
20-inch HR Trinitron
AG pitch
0.30 mm, 90 ° deflection,
Ø30.6 mm in-line gun
Visual screen (Viewable area,
measured diagonally) W x H (Diagonal)
4:3 386 x 291 mm, (482 mm)
4:3 15 1/4 x 11 1/2 inch, (19 inch)
16:9 386 x 218 mm, (443 mm)
16:9 15 1/4 x 8 5/8 inch, (17 1/2 inch)
Phosphor
SMPTE-C/EBU

Inputs/outputs

Control

LAN
Ethernet (10 BASE-T/100 BASE-TX),
RJ-45 x1
Parallel remote
D-sub 9-pin x 1 (Short to ground)
Option
RS-232C serial interface,
Mini DIN 8-pin x 1

Video Signal Performance

Differential gain (DG)
Within 5% for luminance from
0 to 100 cd/m2
Differential phase (DP)
Within 5° for luminance from
0 to 100 cd/m2
Frequency response
48 Hz to 30 MHz +1dB/-3 dB
DC restoration
Back porch type, back porch level:
within 1% of peak luminance,
10 to 90% APL

Synchronisation

Retrace
Horizontal
under 3.77 μ sec
time
Vertical
under 650 μ sec

Raster and Picture Performance

Normal scan
5% over scan of the effective picture area
Under scan
3% under scan of the effective picture area
Linearity
Less than 0.5% within circle centered
on the screen with a diameter equal to the
vertical height, 1% at any other point*
Colour temperature
D65 / D93 / D56 / USER1-5
(User adjustable)
Convergence
Less than 0.4mm within circle centered on
the screen with a diameter equal to the
vertical height, 0.7 mm at any other point

Preset brightness

100 cd/m2 (when a 1.0 Vp-p
100% white signal is input)
Stability of raster size
1% of picture height
(at 100 cd/áú peak luminescence,
10 to 90 % APL)

Scan delay

Horizontal
Approx. 2/9 line
Vertical
Approx. 1/2 field

Resolution (Centre)

16:9: 700 TV lines, 4:3 900 TV lines

Operating Conditions

Operating temperature
0 to 35 °C,
Optimum operating range 20 to 30 °CC
Storage temperature
-10 to 40 °C
Humidity
30 to 90 % (no condensation)

BVM-A14F5M Color Video Monitor

Features

14-inch Broadcast color video monitor *Flat surface HR Trinitron CRT provides high resolution of 800 TV lines
 *EBU standard phosphors *Beam current feedback circuit for stable color reproduction *Multi-format signal support
 *Dual link HD-SDI *Modular slot design for optional input board (BKM-61D/62HS/68X) *Auto white balance *Auto matrix selection *Auto Chroma phase *Digital Uniformity
 *Aspect ratio 4:3 and 16:9 switchable *Memory stick for storage and recall of monitor set-up data *Built-in test signal generator *H/V delay function *External sync
 *Auto and manual degaussing *Various area markers
 *Parallel and Ethernet based remote control *SNMP remote maintenance *19-inch EIA optional rack mount

* 13 1/8 inches viewable area, measured diagonally.



Supplied Accessories

4:3 Mask
 AC cable
 AC plug holder
 Tally label
 Operation manual

Optional Accessories

Memory stick
 BKM-14L Auto Set-up Probe
 BKM-30E14 19-inch EIA standard rack mounting kit
 BKM-61D SD-SDI, Multi analogue board
 BKM-62HS HD/SD-SDI board
 BKM-68X RGB/component board
 SMF-700 Monitor interface cable

Specifications

General

Signal format
 15.625 kHz to 45 kHz
 Type
 Stand-alone monitor
 Power requirements
 100 V to 240 V AC \pm 10%, 50/60Hz
 Power consumption
 170 W (Max.) (with Option board; Max.)
 Dimensions (W x H x D)
 482 X 280 X 571 (mm)
 19 x 11 1/8 x 22 1/2 (inch)
 Mass
 approx. 26 kg / (57 lb 5 oz)
 CRT
 CRT type
 14-inch HR Trinitron
 AG pitch
 0.25 mm, 90 ° deflection,
 Ø29.4 mm in-line gun
 Visual screen (Viewable area,
 measured diagonally) W x H (Diagonal)
 4:3 267.5 x 200.6 mm, (331.6 mm)
 4:3 10 5/8 x 8 inch , (13 1/8 inch)
 16:9 267.5 x 150.5 mm, (306.9 mm)
 16:9 10 5/8 x 6 inch , (12 1/8 inch)
 Phosphor
 SMPTE-C/EBU

Inputs/outputs

Control

LAN
 Ethernet (10 BASE-T/100 BASE-TX),
 RJ-45 x1
 Parallel remote
 D-sub 9-pin x 1 (Short to ground)
 Option
 RS-232C serial interface,
 Mini DIN 8-pin x 1

Video Signal Performance

Differential gain (DG)
 Within 5% for luminance from
 0 to 70 cd/m2
 Differential phase (DP)
 Within 5° for luminance from
 0 to 70 cd/m2
 Frequency response
 48 Hz to 30 MHz +1dB/-3 dB
 DC restoration
 Back porch type, back porch level:
 within 1% of peak luminance,
 10 to 90% APL

Synchronisation

Retrace Horizontal under 3.77 μ sec
 time Vertical under 650 μ sec

Raster and Picture Performance

Normal scan
 5% over scan of the effective picture area
 Under scan
 3% under scan of the effective picture area
 Linearity
 Less than 1% within circle centered on the
 screen with a diameter equal to the vertical
 height, 2% at any other point*
 Colour temperature
 D65 / D93 / D56 / USER1-5
 (User adjustable)
 Convergence
 Less than 0.5mm within circle centered on
 the screen with a diameter equal to the
 vertical height, 0.8 mm at any other point

Preset brightness

70 cd/m2 (when a 1.0 Vp-p
 100% white signal is input)
 Stability of raster size
 1% of picture height
 (at 70 cd/au peak luminescence,
 10 to 90 % APL)
 Scan delay
 Horizontal
 Approx. 2/9 line
 Vertical
 Approx. 1/2 field
 Resolution (Centre)
 16:9: 600 TV lines, 4:3 800 TV lines

Operating Conditions

Operating temperature
 0 to 35 °C,
 Optimum operating range 20 to 30 °C
 Storage temperature
 -10 to 40 °C
 Humidity
 30 to 90 % (no condensation)

LMD-322W LCD Monitor



32-inch wide aspect ratio high-brightness LCD panel for professional picture monitoring

Features

- *32-inch(*) screen display
- *High resolution of 1280 x 768 pixels (WXGA)
- *Used in combination with the Multiformat Engine Unit, MEU-WX2
- *Superb picture performance provides excellent brightness and contrast, and wide viewing angle
- *AR-Coated protection panel
- *Slim and lightweight
- *330 x 330 mm pitch mounting hooks available on rear

*Viewable area measured diagonally

Supplied Accessories

- AC cord
- AC plug holder
- Display interface cable
- Operating instructions

Optional Accessories

- SU-559 Monitor Stand
- SMF-600 Display IF Cable



LMD-322W with
SU-559 monitor stand

Specifications

Picture Performance

Type
a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel

Resolution
1280 x 768 dots

Pixel efficiency
99.99%

Dot pitch
0.537 x 0.537 mm

Picture Size (H x W) (Diagonal)
Approx. 687 x 412 mm
(27 1/8 x 16 1/5 inches)
802 mm (31 5/8 inches)

Aspect
15:09

Colors
16,770,000 colors

Viewing Angle
85°/85°/85°/85° (typical)
(up/down/left/right contrast>10:1)

Input

Display Input connector

- Digital input
- DVI-D

Dot clock
25.175 MHz, 68.250 MHz

Scanning Frequency

- Horizontal: 31.469 kHz, 47.396 kHz
- Vertical: 59.940 Hz, 59.995 Hz

General

Power Consumption
Approx. 120 W

Power requirement
AC 100 to 240 V \pm 10%, 50/60 Hz

Operating Temperature
0 to 35°C (32 to 95 °F)

Operating Humidity
30 to 80% (no condensation)

Storage & Transport Temperature
-10 to 40°C (14 to 104°F)

Storage & Transport Humidity
0 to 80%

Operating/Storage/Trans. Pressure
700 to 1060 hPa

Dimensions (W x H x D)
790 x 512 x 94 mm
(31 1/8 x 20 1/4 x 3 3/4 inches)

Mass
Approx. 17.6 Kg (Approx. 38 lb 13 oz)
Approx. 49.6 Kg (Approx. 108 lb 22 oz)

LMD-232W LCD Monitor



23-inch wide aspect ratio high-brightness LCD panel for professional picture monitoring.

Features

- *23-inch(*) screen display *High resolution of 1280 x 768 pixels (WXGA) *Used in combination with the MEU-WX2, Multiformat Engine Unit *Superb picture performance provides excellent brightness and contrast and wide viewing angle *AR-Coated protection panel
- *Slim and Lightweight

*Viewable area measured diagonally

Supplied Accessories

Display interface cable

Operating instructions

Optional Accessories

SU-558 Monitor Stand

SMF-600 Display IF Cable



Specifications

Picture Performance

Type

a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel

Resolution

1280 x 768 dots

Pixel efficiency

99.99%

Dot pitch

0.3915 x 0.3915 mm

Picture Size (H x W) (Diagonal)

Approx. 501 x 301 mm
(19 3/4 x 11 7/8 inches)
584 mm (23 inches)

Aspect

15:09

Colors

16,770,000 colors

Viewing Angle

85°/85°/85°/85° (typical)
(up/down/left/right contrast>10:1)

Input

Display Input connector

Digital input

DVI-D

Dot clock

25.175 MHz, 68.250 MHz

Scanning Frequency

Horizontal: 31.469 kHz, 47.396 kHz

Vertical: 59.940 Hz, 59.995 Hz

General

Power Consumption

Approx. 65 W

Power requirement

DC 16.5 V

Operating Temperature

0 to 35 °C (32 to 95 °F)

Operating Humidity

30 to 80% (no condensation)

Storage & Transport Temperature

-10 to 40 °C (14 to 104 °F)

Storage & Transport Humidity

0 to 80%

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Dimensions (W x H x D)

563 x 372 x 78 mm
(22 1/4 x 14 3/4 x 3 1/8 inches)

Mass

Approx. 6.4 Kg (Approx. 14 lb 2 oz)

Approx. 11.6 Kg (Approx. 25 lb 9 oz)

LMD-172W LCD Monitor



17-inch wide aspect ratio high-brightness LCD panel for professional picture monitoring.

Features

- *17-inch(*) screen display
- *High resolution of 1280 x 768 pixels (WXGA)
- *Used in combination with the MEU-WX2 Multiformat Engine Unit
- *Superb picture performance provides excellent brightness and contrast, and Wide viewing angle
- *AR-Coated protection panel
- *Slim and lightweight
- *19-inch EIA standard rack mountable in 7U height using MB-522A mounting bracket
- *VESA compatible mounting holes (75 x 75 mm pitch)
- *Three-color tally

*Viewable area measured diagonally

Supplied Accessories

Display interface cable
Operating instructions

Optional Accessories

SMF-600 Display IF Cable
SU-558 Monitor Stand
MB-522A Rack-Mount Bracket



Specifications

Picture Performance

Type
a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel

Resolution
1280 x 768 dots

Pixel efficiency
99.99%

Dot pitch
0.284 x 0.284 mm

Picture Size (H x W) (Diagonal)
Approx. 364 x 218 mm
(14 3/8 x 8 5/8 inches)
424 mm (16 3/4 inches)

Aspect
15:09

Colors
16,770,000 colors

Viewing Angle
85°/85°/85°/85° (typical)
(up/down/left/right contrast>10:1)

Input

Display Input connector
Digital input
DVI-D

Dot clock
25.175 MHz, 68.250 MHz

Scanning Frequency
Horizontal: 31.469 kHz, 47.396 kHz
Vertical: 59.941 Hz, 59.995 Hz

General

Power Consumption
Approx. 53 W

Power requirement
DC 16.5 V/12V

Operating Temperature
0 to 35 °C (32 to 95 °F)

Operating Humidity
30 to 80% (no condensation)

Storage & Transport Temperature
-10 to 40 °C (14 to 104 °F)

Storage & Transport Humidity
0 to 80%

Operating/Storage/Trans. Pressure
700 to 1060 hPa

Dimensions (W x H x D)
441 x 294 x 76 mm
(17 3/8 x 11 5/8 x 3 inches)

Mass
Approx. 4.8 Kg (Approx. 10 lb 9 oz)
Approx. 10.0 Kg (Approx. 21 lb 1 oz)

LMD-212 LCD Monitor



21-inch 4:3 aspect ratio high-brightness LCD panel for professional picture monitoring

Features

21-inch () screen display *High resolution of 1024 x 768 pixels (XGA) *Used in combination with the MEU-WX2 Multiformat Engine Unit *Superb picture performance provides excellent brightness and contrast, and wide viewing angle *AR-Coated protection panel *Slim and lightweight *19-inch EIA standard rack mountable in 10U height using MB-523 mounting bracket *VESA compatible mounting holes (75 x 75 mm pitch) *Three-color tally

*Viewable area measured diagonally

Supplied Accessories

Display interface cable
Operating instructions

Optional Accessories

SU-558 Monitor Stand
SMF-600 Display IF Cable
MB-523 Rack-Mount Bracket



Specifications

Picture Performance

Type

a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel

Resolution

1024 x 768 dots

Pixel efficiency

99.99%

Dot pitch

0.420 x 0.420 mm

Picture Size (H x W) (Diagonal)

Approx. 430 x 323 mm
(17 x 12 3/4 inches)
538 mm (21 1/4 inches)

Aspect

4:3

Colors

16,770,000 colors

Viewing Angle

85°/85°/85°/85° (typical)
(up/down/left/right contrast>10:1)

Input

Display Input connector

Digital input

DVI-D

Dot clock

25.175 MHz, 65.000 MHz

Scanning Frequency

Horizontal: 31.469 kHz, 48.363 kHz

Vertical: 59.940 Hz, 60.004 Hz

General

Power Consumption

Approx. 84 W

Power requirement

DC 16.5 V

Operating Temperature

0 to 35 °C (32 to 95 °F)

Operating Humidity

30 to 80% (no condensation)

Storage & Transport Temperature

-10 to 40 °C (14 to 104 °F)

Storage & Transport Humidity

0 to 80%

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Dimensions (W x H x D)

515 x 409 x 81 mm
(20 3/8 x 16 1/8 x 3 1/4 inches)

Mass

Approx. 6.7 Kg (Approx. 15 lb 7 oz)

Approx. 11.9 Kg (Approx. 26 lb 4 oz)

LMD-152 LCD Monitor



15-inch 4:3 aspect ratio high-brightness LCD panel for professional picture monitoring

Features

- *High resolution of 1024 x 768 pixels (XGA) *Used in combination with the MEU-WX2 Multifomat Engine Unit
- *Superb picture performance provides excellent brightness and contrast, and wide viewing angle
- *AR-Coated protection panel *Slim and lightweight
- *19-inch EIA standard rack mountable in 7U height using MB-524 mounting bracket *VESA compatible mounting holes (75 x 75 mm pitch) *Three-color tally

Supplied Accessories

Display interface cable

Operating instructions

Optional Accessories

MB-524 Rack-Mount Bracket

SMF-600 Display IF Cable

SU-558 Monitor Stand



Specifications

Picture Performance

Type

a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel

Resolution

1024 x 768 dots

Pixel efficiency

99.99%

Dot pitch

0.297 x 0.297 mm

Picture Size (H x W) (Diagonal)

Approx. 304 x 228 mm
(12 x 9 inches)
380 mm (15 inches)

Aspect

4:3

Colors

16,770,000 colors

Viewing Angle

85°/85°/85°/85° (typical)
(up/down/left/right contrast>10:1)

Input

Display Input connector

Digital input

DVI-D

Dot clock

25.175 MHz, 65.000 MHz

Scanning Frequency

Horizontal: 31.469 kHz, 48.363 kHz

Vertical: 59.941 Hz, 60.004 Hz

General

Power Consumption

Approx. 29 W

Power requirement

DC 16.5 V/12 V

Operating Temperature

0 to 35 °C (32 to 95 °F)

Operating Humidity

30 to 80% (no condensation)

Storage & Transport Temperature

-10 to 40 °C (14 to 104 °F)

Storage & Transport Humidity

0 to 80%

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Dimensions (W x H x D)

379 x 297x 70 mm
(15 x 11 5/8 x 2 7/8 inches)

Mass

Approx. 4.0 Kg (Approx. 8 lb 13oz)

Approx. 9.2 Kg (Approx. 20 lb 4oz)

MEU-WX2 Multiformat Engine Unit



Multiformat Engine Unit for use with an LCD panel
(LMD-322W, LMD-232W, LMD-212, LMD-172W,
and LMD-152)

Features

*Signal processing unit for the LMD-322W, LMD-232W, LMD-212, LMD-172W, and LMD-152 *Accepts RGB, analog component, Composite, S-Video signals as standard. Accepts SD-SDI signals, HD-SDI and DV signals by use of the appropriate optional input adaptor
*Sophisticated I/P Conversion using X-Algorithm technology *Accurate Gamma and stable White Balance using ChromaTru technology *Various Marker settings
*Color temperature selection *Selectable scan size and aspect ratio *Parallel remote control *Stereo audio monitoring *Protected controls *H/V delay function
*Setup level for analog component and NTSC signal
*Blue-only mode *Monochrome mode *Auto Chroma/Phase setup *External sync capability *Smart APA (Auto Pixel Alignment) *Lightweight in 1U size



Supplied Accessories

Display interface cable (1)
Screw (4)
CD-ROM manual (1)
AC plug holder (1)
AC cord (1)
Operating manuals (1)
Mounting bracket (for MEU) (1)

Optional Accessories

BKM-255DV DV Input Adaptor
SMF-600 Display IF Cable
BKM-243HS HD SDI&SDI Input Adaptor
BKM-220D SDI 4:2:2 Input Adaptor

Specifications

Input

Composite

BNC, Loop through, automatic
75 Ω termination (x1)
1.0 Vp-p \pm 3 dB, sync negative

Y/C

BNC, Loop through, automatic
75 Ω termination (x2)
S-Y: 1.0 Vp-p \pm 3 dB, sync negative
S-C: 0.286 Vp-p \pm 3 dB (NTSC)
0.3 Vp-p \pm 3 dB (PAL)

Component

BNC, Loop through, automatic
75 Ω termination (x3)
0.7 Vp-p \pm 3 dB

RGB

BNC, Loop through, automatic
75 Ω termination (x3)
G: 0.7 Vp-p \pm 3 dB, Sync on G 0.3Vp-p
B: 0.7 Vp-p \pm 3 dB
R: 0.7 Vp-p \pm 3 dB

Audio in (for Video signals)

Stereo mini jack (x1), -5 dBu,
more than 47 k Ω

OPTION A-1

Option Slot (x1)

OPTION A-2

Option Slot (x1)

OPTION B-1

Option Slot (x1)

OPTION B-2

Option Slot (x1)

Ext. sync

BNC, Loop-through, automatic
75 Ω termination
0.3 ~ 4 Vp-p \pm 3 dB, sync negative, usable
tri-level sync signal 0.6 Vp-p \pm 3 dB

Computer

HD D-sub 15-pin (female) (x1), 0.7 Vp-p,
75 Ω , positive (R,G,B)

Audio in (for computer signals)

Stereo mini jack (x1), -5 dBu, more than 47 k Ω

DC IN

XLR 4-pin (male) (x1), 12 V, output
impedance 0.05 Ω or less

Output

Audio monitor out

Stereo mini jack (x1)

Speaker Out

Stereo (0.5 W + 0.5 W)

PARALLEL Remote

Modular 8-pin (Assignable)

Display Signal Out

Exclusive connector (x1)

Display DC Out

XLR 4-pin (female) (x1), DC 16.5 V
(when AC power is supplied) DC 12 V
(when DC power is supplied)

Video

Horizontal Scanning Frequency

15 to 45 kHz

Frame Scanning Frequency

48 to 60 Hz

Computer

Dot clock

110 MHz

Horizontal Scanning Frequency

28 to 69 kHz

Vertical Scanning Frequency (frame)

60 to 85 Hz

Plug & Play

DDC-2B

General

Power consumption

Maximum: Approx. 92 W
(with 2 x BKM-243HS and LMD-232W)
Standard: Approx. 26 W
(without optional input adaptor)

Power requirement

AC 100 to 240 V \pm 10%, 50/60 Hz,
DC 12 V (LMD-172W only)

Operating Temperature

0 to 35 $^{\circ}$ C (32 to 95 $^{\circ}$ F)

Operating Humidity

30 to 85% (no condensation)

Storage and Trans. Temperature

-10 to 40 $^{\circ}$ C (14 to 104 $^{\circ}$ F)

Storage & Transport Humidity

0 to 90%

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Dimensions (W x H x D)

(excluding protrusions)
434 x 44 x 305 mm
(17 1/8 x 1 3/4 x 12 1/8 inches)

Mass

Approx. 4.5 kg (9 lb 15 oz)

LMD-2020 LCD Monitor

20-inch 4:3 aspect high-brightness LCD monitor
for professional picture monitoring.

Features

*Precise reproduction of interlace SD images *Excellent Brightness and Contrast *Faithful color reproduction
*Lightweight and thin *Full range of analog SD input capability *Digital SD-SDI input capability with the use of the optional BKM-320D *19-inch EIA rack mountable (using MB-527 mounting bracket) *VESA 100 x 100 pitch spacings *Supplied monitor stand *Operational features inherited from Sony PVM monitors *AR-Coated protection panel *Normal scan and Under scan mode
*Assignable parallel remote control

Supplied Accessories

AC power cord x 1
AC plug holder x 2
CD-ROM x 1
Using the CD-ROM Manual x 1

Optional Accessories

MB-527 Mounting Bracket
BKM-320D SDI 4:2:2 input adaptor

Specifications

Picture Performance

LCD Panel

Type

A-Si TFT Active Matrix LCD with an
AR-coated protection panel

Resolution

640 x 480 dots

Pixel efficiency

99.99%

Dot pitch

0.213(H) x 0.638(V) mm

Picture Size

(H x W) Approx. 408 x 306mm
(Diagonal) 510mm (20.1 inch)

Aspect

4:3

Colors

Approx. 16,700,000 colors

Viewing Angle

85°/85°/85°/85° (U/D/L/R, contrast
>10:1 typical)

Input

Line A

Composite

BNC type x1

1.0Vp-p±3dB 75Ω terminated sync

0.3 Vp-p negative

Y/C

DIN 4 pin x 1

Y: 1.0Vp-p±3dB 75Ω terminated,

C: 0.286Vp-p±3dB(NTSC),

0.3Vp-p±3dB (PAL) 75Ω terminated,
sync 0.3 Vp-p negative

Audio in RCA pin x 1

-5dBu 47kΩ or higher

Line B

Composite BNC type x 1

1.0Vp-p±3dB 75Ω terminated sync

0.3 Vp-p negative

Audio in RCA pin x 1

-5dBu 47kΩ or higher

RGB/Component

RGB/Component BNC type x 3

0.7Vp-p±3dB 75Ω terminated

Sync on Green 0.3Vp-p, negative

Audio in

RCA pin x 1

-5dBu 47kΩ or higher

Option

D1-SDI

D-sub 9-pin x 1

Audio in

RCA pin x 1 -5dBu 47kΩ or higher

External Sync

BNC type x 1

Remote

Parallel remote

Modular 8-pin (Assignable)

TALLY

Controlled through parallel remote
(Modular 8-pin)

Output

Line A

Composite BNC type x 1

Loop-through, with 75Ω automatic terminal function

Y/C

DIN 4 pin x 1

Loop-through, with 75Ω automatic terminal function

Audio in

RCA pin x 1

Loop-through

Line B

Composite

BNC type x 1

Loop-through, with 75Ω automatic terminal function

Audio in

RCA pin x 1

Loop-through

RGB/Component

RGB/Component

BNC type x 3

Loop-through, with 75Ω automatic terminal function

Audio in

RCA pin x 1

Loop-through

External Sync

BNC type x 1 Loop-through

with 75Ω automatic terminal function

Speaker power

0.5W monaural

General

Power Consumption

Approx. 87W

Power requirement

AC100 240V 50/60Hz

Operating Temperature

0 to 35 °C

Operating Humidity

30 to 85% (No condensation)

Storage & Transport Temperature

-10 to 40 °C

Storage & Transport Humidity

0 to 90%

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Dimensions (W x H x D)

Dimension with stand (mm)

Approx. 470 x 441 x 264 mm

Dimension without stand

Approx. 470 x 394 x 87mm

Mass

Panel & Stand

Approx. 9.2 kg

Panel only

Approx. 7.5 kg



LMD-2010 LCD Monitor

20-inch 4:3 aspect high-brightness LCD monitor
for professional picture monitoring.

Features

*Precise reproduction of interlace SD images *Excellent Brightness and Contrast *Faithful color reproduction
*Lightweight and thin *Full range of analog SD input capability *19-inch EIA rack mountable (using MB-527 mounting bracket) *VESA 100 x 100 pitch spacings
*Supplied monitor stand *Operational features inherited from Sony PVM monitors. *Normal scan and Under scan mode *Assignable parallel remote control

Supplied Accessories

AC power cord x 1
AC plug holder x 2
CD-ROM x 1
Using the CD-ROM Manual x 1

Optional Accessories

MB-527 Mounting Bracket



Specifications

Picture Performance

LCD Panel

Type

A-Si TFT Active Matrix LCD

Resolution

640 x 480 dots

Pixel efficiency

99.99%

Dot pitch

0.213(H) x 0.638(V) mm

Picture Size

(H x W) Approx. 408 x 306mm

(Diagonal) 510mm (20.1 inch)

Aspect

4:3

Colors

Approx. 16,700,000 colors

Viewing Angle

85°/85°/85°/85° (U/D/L/R, contrast
>10:1 typical)

Input

Line A

Composite

BNC type x1

1.0Vp-p±3dB 75Ω terminated sync

0.3 Vp-p negative

Y/C

DIN 4 pin x 1

Y: 1.0Vp-p±3dB 75Ω terminated,

C: 0.286Vp-p±3dB(NTSC),

0.3Vp-p±3dB (PAL) 75Ω terminated,

sync 0.3 Vp-p negative

Audio in RCA pin x 1

-5dBu 47kΩ or higher

Line B

Composite BNC type x 1

1.0Vp-p±3dB 75Ω terminated sync

0.3 Vp-p negative

Audio in RCA pin x 1

-5dBu 47kΩ or higher

RGB/Component

RGB/Component BNC type x 3

0.7Vp-p±3dB 75Ω terminated

Sync on Green 0.3Vp-p, negative

Audio in

RCA pin x 1

-5dBu 47kΩ or higher

Remote

Parallel remote

Modular 8-pin (Assignable)

Output

Line A

Composite BNC type x 1

Loop-through, with 75Ω automatic terminal function

Y/C

DIN 4 pin x 1

Loop-through, with 75Ω automatic

terminal function

Audio in

RCA pin x 1

Loop-through

Line B

Composite

BNC type x 1

Loop-through, with 75Ω automatic

terminal function

Audio in

RCA pin x 1

Loop-through

RGB/Component

RGB/Component

BNC type x 3

Loop-through, with 75Ω automatic

terminal function

Audio in

RCA pin x 1

Loop-through

Speaker power

0.5W monaural

General

Power Consumption

Approx. 84W

Power requirement

AC100 240V 50/60Hz

Operating Temperature

0 to 35 °C

Operating Humidity

30 to 85% (No condensation)

Storage & Transport Temperature

-10 to 40 °C

Storage & Transport Humidity

0 to 90%

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Dimensions (W x H x D)

Dimension with stand (mm)

Approx. 470 x 441 x 264 mm

Dimension without stand

Approx. 470 x 394 x 87mm

Mass

Panel & Stand

Approx. 8.7 Kg

Panel only

Approx. 7.0 kg

LMD-1420 LCD Monitor

14-inch 4:3 aspect high-brightness LCD monitor for professional picture monitoring.

Features

*Precise reproduction of interlace SD images *Excellent brightness and contrast *Faithful color reproduction *Lightweight and thin *Full range of analog SD input capability *Digital SD-SDI input capability with the use of the optional BKM-320D
 *19-inch EIA rack mountable (using MB-526 mounting bracket)
 *VESA 100 x 100 pitch spacings *Supplied monitor stand
 *Operational features inherited from Sony PVM monitors.
 *AR-Coated protection panel *Normal scan and Under scan mode *Assignable parallel remote control

Supplied Accessories

AC power cord x 1
 AC plug holder x 2
 CD-ROM x 1
 Using the CD-ROM Manual x 1

Optional Accessories

MB-526 Mounting Bracket
 BKM-320D SDI 4:2:2 input Adaptor

Specifications

Picture Performance

LCD Panel

Type

A-Si TFT Active Matrix LCD with an AR-coated protection panel

Resolution

640 x 480 dots

Pixel efficiency

99.99%

Dot pitch

0.443(H) x 0.443(V) mm

Picture Size

(H x W) Approx. 283 x 212mm
 (Diagonal) 354mm (14 inch)

Aspect

4:3

Colors

Approx. 16,200,000 colors

Viewing Angle

85°/85°/85°/85° (U/D/L/R, contrast >10:1 typical)

Input

Line A

Composite

BNC type x1
 1.0Vp-p±3dB 75Ω terminated sync
 0.3 Vp-p negative

Y/C

DIN 4 pin x 1
 Y: 1.0Vp-p±3dB 75Ω terminated,
 C: 0.286Vp-p±3dB(NTSC),
 0.3Vp-p±3dB (PAL) 75Ω terminated,
 sync 0.3 Vp-p negative

Audio in RCA pin x 1

-5dBu 47kΩ or higher

Line B

Composite BNC type x 1
 1.0Vp-p±3dB 75Ω terminated sync
 0.3 Vp-p negative
 Audio in RCA pin x 1
 -5dBu 47kΩ or higher

RGB/Component

RGB/Component BNC type x 3
 0.7Vp-p±3dB 75Ω terminated
 Sync on Green 0.3Vp-p, negative

Audio in

RCA pin x 1
 -5dBu 47kΩ or higher

Option

D1-SDI
 D-sub 9-pin x 1

Audio in

RCA pin x 1 -5dBu 47kΩ or higher

External Sync

BNC type x 1

Remote

Parallel remote
 Modular 8-pin (Assignable)

TALLY

Controlled through parallel remote
 (Modular 8-pin)

Output

Line A

Composite BNC type x 1
 Loop-through, with 75Ω automatic terminal function

Y/C

DIN 4 pin x 1
 Loop-through, with 75Ω automatic terminal function

Audio in

RCA pin x 1
 Loop-through

Line B

Composite BNC type x 1
 Loop-through, with 75Ω automatic terminal function

Audio in

RCA pin x 1
 Loop-through

RGB/Component

RGB/Component BNC type x 3
 Loop-through, with 75Ω automatic terminal function

Audio in

RCA pin x 1
 Loop-through

External Sync

BNC type x 1 Loop-through
 with 75 Ω automatic terminal function

Speaker power

0.5W monaural

General

Power Consumption

Approx. 51W

Power requirement

AC100 240V 50/60Hz

Operating Temperature

0 to 35 °C

Operating Humidity

30 to 85% (No condensation)

Storage & Transport Temperature

-10 to 40 °C

Storage & Transport Humidity

0 to 90%

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Dimensions (W x H x D)

Dimension with stand (mm)
 Approx. 343 x 354 x 264 mm
 Dimension without stand
 Approx. 343 x 304 x 87 mm

Mass

Panel & Stand
 Approx. 6.8 kg
 Panel only
 Approx. 5.1 kg



LMD-1410 LCD Monitor

14-inch 4:3 aspect high-brightness LCD monitor for professional picture monitoring.

Features

*Precise reproduction of interlace SD images *Excellent Brightness and Contrast *Faithful color reproduction
*Lightweight and thin *Full range of analog SD input capability *19-inch EIA rack mountable (using MB-526 mounting bracket) *VESA 100 x 100 pitch spacings
*Supplied monitor stand *Operational features inherited from Sony PVM monitors. *Normal scan and Under scan mode *Assignable parallel remote control

Supplied Accessories

AC power cord x 1
AC plug holder x 2
CD-ROM x 1
Using the CD-ROM Manual x 1

Optional Accessories

MB-526 Mounting Bracket



Specifications

Picture Performance

LCD Panel

Type

A-Si TFT Active Matrix LCD

Resolution

640 x 480 dots

Pixel efficiency

99.99%

Dot pitch

0.443(H) x 0.443(V) mm

Picture Size (H x V)

Approx. 283 x 212mm

(Diagonal) 354mm (14 inch)

Aspect

4:3

Colors

Approx. 16,200,000 colors

Viewing Angle

85°/85°/85°/85° (U/D/L/R, contrast

>10:1 typical)

Input

Line A

Composite

BNC type x1

1.0Vp-p±3dB 75Ω terminated sync

0.3 Vp-p negative

Y/C

DIN 4 pin x 1

Y: 1.0Vp-p±3dB 75Ω terminated,

C: 0.286Vp-p±3dB(NTSC),

0.3Vp-p±3dB (PAL) 75Ω terminated,

sync 0.3 Vp-p negative

Audio in RCA pin x 1

-5dBu 47kΩ or higher

Line B

Composite BNC type x 1

1.0Vp-p±3dB 75Ω terminated sync

0.3 Vp-p negative

Audio in RCA pin x 1

-5dBu 47kΩ or higher

RGB/Component

RGB/Component BNC type x 3

0.7Vp-p±3dB 75Ω terminated

Sync on Green 0.3Vp-p, negative

Audio in

RCA pin x 1

-5dBu 47kΩ or higher

Remote

Parallel remote

Modular 8-pin (Assignable)

Output

Line A

Composite BNC type x 1

Loop-through, with 75Ω automatic terminal function

Y/C

DIN 4 pin x 1

Loop-through, with 75Ω automatic

terminal function

Audio in

RCA pin x 1

Loop-through

Line B

Composite

BNC type x 1

Loop-through, with 75Ω automatic

terminal function

Audio in

RCA pin x 1

Loop-through

RGB/Component

RGB/Component

BNC type x 3

Loop-through, with 75Ω automatic terminal function

Audio in

RCA pin x 1

Loop-through

Speaker power

0.5W monaural

General

Power Consumption

Approx. 48W

Power requirement

AC100 240V 50/60Hz

Operating Temperature

0 to 35 °C

Operating Humidity

30 to 85% (No condensation)

Storage & Transport Temperature

-10 to 40 °C

Storage & Transport Humidity

0 to 90%

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Dimensions (W x H x D)

Dimension with stand (mm)

Approx. 343 x 354 x 264 mm

Dimension without stand

Approx. 343 x 304 x 87 mm

Mass

Panel & Stand

Approx. 6.5 kg

Panel only

Approx. 4.8 kg



LMD-9050 8.4-inch Multiformat LCD Monitor

Features

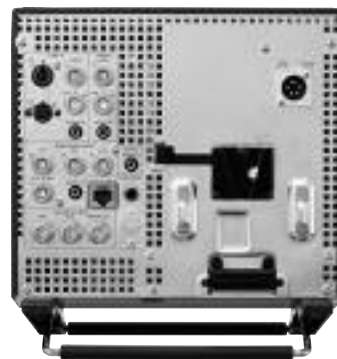
Excellent Picture Quality *Excellent Brightness and Contrast *Wide Viewing Angle *170 degrees, horizontally and vertically *AR-Coated Protection Panel *Versatile Input Signals: Composite PAL/NTSC, Y/C, Component and RGB, D1-SDI and HD SDI *Professional Functionalities *AC/DC operation *Battery operation *Parallel Remote (Modular 8-pin) *Color Temperature Adjustment *Five gamma presets *Underscan mode *Blue Only Mode *External sync *Aspect ratio switchable *Three-color tally lamp. *19-inch EIA dual rack mountable (using the MB-525/528 mounting bracket)

Supplied Accessories

AC power cord x 1
AC plug holder x 1
AC adaptor x 1
Approx. 101 x 171 x 88mm (included a projection)
Approx. 700g
Operation Instructions x 1
CD-ROM x 1
Using the CD-ROM Manual x 1

Optional Accessories

MB-525 Mounting Bracket
MB-528 Blank Panel Attachment for MB-525
VF-509 ENG Kit (Viewing Hood, Carrying Handle and Connector Protector)
BP-GL95/BP-GL65 Rechargeable Lithium-ion Battery Pack
BP-L60S Lithium-ion Battery Pack
BC-L70 Lithium-ion Battery Charger



Specifications

Picture Performance

Type

a-Si TFT Active Matrix LCD with AR-coated protection panel

Resolution

1024 x 768 dots

Pixel efficiency

99.99%

Picture Size (WxH)

Approx. 170.496 x 127.872mm
8.4 inch (213mm)

Aspect

4:3

Colors

16,770,000 colors

Viewing Angle

85°/85°/85°/85° (typical) (up/down/left/right contrast.10:1)

Input/Output

INPUT

LINE A

Composite BNC x 1

Y/C 4-pin mini-DIN x 1

Audio Minijack 1

LINE B

Composite BNC x 1

Audio Minijack 1

RGB/Component

BNC x 3

Audio Minijack 1

HD-SDI/D1-SDI

BNC x 2 (HD and D1 are automatically detected)

Ext.sync

BNC x 1

Remote Parallel remote Modular 8-pin x 1

OUTPUT

LINE A

Y/C 4-pin mini-DINx1

Composite BNC x 1 automatic

75Ω termination

LINE B

Composite BNC x 1 automatic

75Ω termination

HD-SDI/D1-SDI Monitor output

BNC x 1

Audio output

Minijack 1

Headphones output

Mini jack x 1(Monaural)

Speaker output

0.5W(Monaural)

General

Power consumption

Approx. 25W with AC Adaptor

Power requirement

DC 12V (XLR Connector x1), AC100 to 240V. 50/60Hz (AC power adaptor x1),
Battery

Operating Temperature

0 to 35 °C

Operating Humidity

30 to 85%(No condensation)

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Storage & Transport Temperature

-10 to 40 °C

Storage & Transport Humidity

0 to 90%

Dimensions (WxHxD)

Approx. 216 x 206(230 including stand) x 136.1(159.5 including stand, 210 including AC adaptor)mm

Mass

Approx.3 Kg without supplied Accessories
(3.11 Kg including stand, 3.9 Kg including AC adaptor)

LMD-9030 8.4-inch LCD Video monitor

Features

- *One-piece monitor for Standard Definition *4:3/16:9 Switchable Display *SD-SDI capability as standard
- *Analogue composite, Y/C and analogue component interfaces *Can also accept High Definition signals in component analogue format *High picture quality provided by high brightness, high contrast and wide viewing angles
- *AC/DC power *Battery operation *Professional Functionalities *Underscan mode *Blue only mode
- *19-inch EIA standard rack mountable *Slim and light
- *AR-coated panel

Supplied Accessories

- AC adaptor (1)
- AC Cord (1)
- AC plug holder (1)
- Operating instructions (1)
- CD-ROM (1)
- Using the CD-ROM Manual (1)

Optional Accessories

- MB-525 Mounting Bracket
- MB-528 Blank Panel Attachment for MB-525
- VF-509 ENG Kit (Viewing Hood, Carrying Handle and Connector Protector)
- BP-GL95/BP-GL65 Rechargeable Lithium-ion Battery Pack
- BP-L60S Lithium-ion Battery Pack
- BC-L70 Lithium-ion Battery Charger



Specifications

Picture Performance

Type

a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel

Resolution

640 x 680 dots

Pixel efficiency

99.99%

Picture Size (H x W), (Viewable area)

Approx. 170.9 x 128.2 mm,
(Approx. 6 3/4 x 5 1/8 inches)
(Diagonal) 213.6 mm (8.4-inch)

Aspect

4:3

Colors

16,770,000 colors

Viewing Angle

85°/85°/85°/85° (typical)
(up/down/left/right contrast>10:1)

Input

Line A

Composite

BNC x 1, 1.0 Vp-p +3dB,
-6 dB sync negative
4-pin mini-DIN x 1

Y/C

Y : 1.0 Vp-p + 3dB,
-6 dB sync negative
C : 0.286 Vp-p ±3 dB (NTSC),
0.3 Vp-p ±3 dB (PAL)

Audio

Mini jack x 1, -5 dBu 47 k Ω or higher

Line B

Composite

BNC x 1, 1.0 Vp-p +3 dB,
-6 dB sync negative

Audio

Mini jack x 1, -5 dBu 47 k Ω or higher

RGB/Component

RGB/Component

BNC x 3, RGB input :
0.7 Vp-p +3 dB, -6 dB
(Sync On Green,
0.3 Vp-p sync negative)
Component input : 0.7 Vp-p +3 dB,
-6 dB (75% chrominance standard
color bar signal)

Audio

Mini jack x 1, -5 dBu 47 k Ω or higher

Ext.sync

BNC x 1, 0.3 to 4 Vp-p ± bipolarity ternary
or negative polarity binary

D1-SDI

BNC x 2, Sampling frequency :Y/R-Y/B-Y
13.5 MHz, Quantization 10 bits/sample

Remote

Parallel remote

Modular connector
8-pin x 1(Assignable)

Output

Line A

Composite

BNC x 1, Loop-through,
with 75 Ω automatic termination

Y/C

4-pin mini-DIN x 1, Loop-through,
with 75 Ω automatic termination

Line B

Composite

BNC x 1, Loop-through,
with 75 Ω automatic termination

D1-SDI Monitor output

BNC x 1, Output signal amplitude:
800 mVp-p ±10%, Output impedance:
75 Ω unbalanced

Audio output

Mini jack x 1, Loop-through

Headphones output

Mini jack x 1(Monaural), Loop-through

Speaker output

0.5 W (Monaural)

General

Power Consumption

Approx. 16W, With AC Adaptor:
Approx. 22 W

Power requirement

AC 100 to 240 V, 50/60 Hz, 0.82 to 0.42 A,
DC 12 V 1.6 A,
Rechargeable Battery Pack

Operating Temperature

0 to 40 °C

Operating Humidity

30 to 85 % (No condensation)

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Storage & Transport Temperature

-20 to 60 °C

Storage & Transport Humidity

0 to 90 %

Dimensions (W x H x D)

Approx. 216 x 206 x 136.1 mm
(8 5/8 x 8 1/8 x 5 3/8 inches)
Dimension with the supplied stand
Approx. 216 x 230 x 159.5 mm
(8 5/8 x 9 1/8 x 6 3/8 inches)
Dimension with the supplied stand
and AC adaptor
Approx. 216 x 230 x 210 mm
(8 5/8 x 9 1/8 x 8 3/8 inches)

Mass

Approx. 2.9 Kg (6 lb 6 oz)
With the supplied stand
Approx. 3.1 Kg (6 lb 13 oz)
With the supplied stand and AC adaptor
Approx. 3.8 Kg (8 lb 6 oz)

LMD-9020 8.4-inch LCD Video monitor

Features

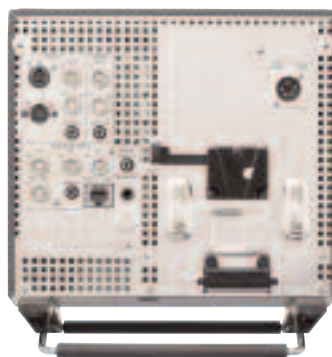
- *One-piece monitor for Standard Definition
- *4:3/16:9 Switchable Display
- *Analogue composite, Y/C and analogue component interfaces
- *Can also accept High Definition signals in component analogue format
- *High picture quality provided by high brightness, high contrast and wide viewing angles
- *AC/DC power
- *Battery operation
- *Professional Functionalities
- *Underscan mode
- *Blue only mode
- *19-inch EIA standard rack mountable
- *slim and light
- *AR-coated panel

Supplied Accessories

- AC adaptor (1)
- AC Cord (1)
- AC plug holder (1)
- Operating instructions (1)
- CD-ROM (1)
- Using the CD-ROM Manual (1)

Optional Accessories

- MB-525 Mounting Bracket
- MB-528 Blank Panel Attachment for MB-525
- VF-509 ENG Kit (Viewing Hood, Carrying Handle and Connector Protector)
- BP-GL95/BP-GL65 Rechargeable Lithium-ion Battery Pack
- BP-L60S Lithium-ion Battery Pack
- BC-L70 Lithium-ion Battery Charger



Specifications

Picture Performance

Type

a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel

Resolution

640 x 680 dots

Pixel efficiency

99.99%

Picture Size (H x W), (Viewable area)

Approx. 170.9 x 128.2 mm,
(Approx. 6 3/4 x 5 1/8 inches)
(Diagonal) 213.6 mm (8.4-inch)

Aspect

4:3

Colors 1

6,770,000 colors

Viewing Angle

85°/85°/85°/85° (typical)
(up/down/left/right contrast>10:1)

Input

Line A

Composite

BNC x 1, 1.0 Vp-p +3dB,
-6 dB sync negative 4-pin mini-DIN x 1

Y/C

Y : 1.0 Vp-p + 3dB,
-6 dB sync negative
C : 0.286 Vp-p ±3 dB (NTSC),
0.3 Vp-p ±3 dB (PAL)

Audio

Mini jack x 1, -5 dBu 47 kΩ or higher

Line B

Composite

BNC x 1, 1.0 Vp-p +3 dB,
-6 dB sync negative

Audio

Mini jack x 1, -5 dBu 47 kΩ or higher

RGB Component

RGB/Component

BNC x 3,
RGB input : 0.7 Vp-p +3 dB, -6 dB
(Sync On Green,
0.3 Vp-p sync negative)
Component input : 0.7 Vp-p +3 dB, -6 dB
(75% chrominance standard color bar
signal)

Audio

Mini jack x 1, -5 dBu 47 kΩ or higher

Ext.sync

BNC x 1, 0.3 to 4 Vp-p ± bipolarity
ternary or negative polarity binary

Remote

Parallel remote

Modular connector
8-pin x 1 (Assignable)

Output

Line A

Composite

BNC x 1, Loop-through,
with 75 Ω automatic termination

Y/C

4-pin mini-DIN x 1, Loop-through,
with 75 Ω automatic termination

Line B

Composite

BNC x 1, Loop-through,
with 75 Ω automatic termination

Audio output

Mini jack x 1, Loop-through

Headphones output

Mini jack x 1 (Monaural), Loop-through

Speaker output

0.5 W (Monaural)

General

Power Consumption

Approx. 15 W, With AC Adaptor :
Approx. 20 W

Power requirement

AC 100 to 240 V, 50/60 Hz, 0.82 to 0.42 A,
DC 12 V 1.5 A,
Rechargeable Battery Pack

Operating Temperature

0 to 40 °C

Operating Humidity

30 to 85 % (No condensation)

Operating/Storage/Trans. Pressure

700 to 1060 hPa

Storage & Transport Temperature

-20 to 60 °C

Storage & Transport Humidity

0 to 90 %

Dimensions (W x H x D)

Approx. 216 x 206 x 136.1 mm
(8 5/8 x 8 1/8 x 5 3/8 inches)

Dimension

with the supplied stand

Approx. 216 x 230 x 159.5 mm
(8 5/8 x 9 1/8 x 6 3/8 inches)

Dimension

with the supplied stand and AC adaptor

Approx. 216 x 230 x 210 mm
(8 5/8 x 9 1/8 x 8 3/8 inches)

Mass

Approx. 2.8 Kg (6 lb 3 oz)

With the supplied stand Approx.

3.0 Kg (6 lb 10 oz)

With the supplied stand and AC adaptor

Approx. 3.7 Kg (8 lb 3 oz)

LMD-7220W Multiple LCD Monitor

Features

Dual screen 7-inch 16:9 aspect ratio high-brightness LCD monitor *7-inch 16:9 aspect ratio LCD panels (x2)

*Selectable Aspect Ratio (between 16:9 and 4:3) *High picture quality provided by high brightness, high contrast, wide viewing angle panels *19-inch EIA standard rack mountable *SDI input (using BKM-320D optional input adaptor) *Low power consumption *Slim and Light *5-step tilt

Supplied Accessories

AC power adaptor (1)
AC power cord (1)
AC plug holder (1)
Screws for AC adaptor holder (2)
Operating Instructions (1)

Optional Accessories

BKM-320D SDI 4:2:2 Input adaptor



Specifications

LCD Panel

Type
a-Si TFT Active Matrix LCD

Resolution
480 x 234 dots

Pixel efficiency
99.99%

Picture Size (H x W)
Approx. 154.1 x 86.6 mm (6 1/8 x 3 1/2 inches)

Diagonal
7 inches (176.7 mm)

Aspect
16:09

Colors
Full color

Viewing Angle
40°/65°/65°/65°(typical)
(up/down/left/right contrast>10:1)

Input / Output

Composite
Input
BNC (x 2)
1.0 Vp-p ±2 dB, sync negative

Output
BNC (x 2), Loop through Automatic 75 Ω termination

OPTION IN
D-sub 9pin connector (x2)

Remote
Parallel
Modular 8 pin (x2)

General

Power Consumption
Maximum: Approx. 68 W
(with 2 x BKM-320D)
Standard:
Approx. 23 W (without optional input adaptor)

Power Requirement
12V DC (with the supplied AC power adaptor)
AC power adaptor: AC 100 to 240 V, 50/60 Hz

Peak inrush current
(1) Power on, current probe method: 57A (230V)
(2) Hot switching inrush current, measured in accordance with European standard

EN55103-1:8A (230V)

Operating Temperature
0 to 35°C (32 to 95° F)

Operating Humidity
30 to 85 % (no condensation)

Storage & Transport Temperature
-10 to 40°C (14 to 104° F)

Storage & Transport Humidity
0 to 90 %

Operating / Storage / Trans. Pressure
700 hPa to 1060 hPa

Dimensions (W x H x D)(inches)
482 x 133 x 47 (19 x 5 1/4 x 1 7/8)*1
With AC adaptor and BKM-320D:
482 x 133 x 116 (19 x 5 1/4 x 4 5/8)

Mass
Approx. 2.3Kg (5 lb 1 oz)*2

*1 Without projecting parts.
*2 Excluding supplied accessories.

LMD-5320 Multiple LCD Monitor

Features

Triple screen 5.6-inch 4:3 aspect ratio high-brightness LCD monitor *5.6-inch 4:3 aspect ratio LCD panels (x3)
 *High picture quality provided by high brightness, high contrast, wide viewing angle panels *19-inch EIA standard rack mountable *SDI input (using BKM-320D optional input adaptor) *Low power consumption *Slim and Light *5-step tilt

Supplied Accessories

AC power adaptor (1)
 AC power cord (1)
 AC plug holder (1)
 Screws for AC adaptor holder (2)
 Operating Instructions (1)

Optional Accessories

BKM-320D SDI 4:2:2 Input adaptor



Specifications

LCD Panel

Type
 a-Si TFT Active Matrix LCD
 Resolution
 320 x 234 dots
 Pixel efficiency
 99.99%
 Picture Size (H x W)
 Approx. 113 x 85 mm (4 1/2 x 3 3/8 inches)
 Diagonal
 5 5/8 inches (142.24 mm)
 Aspect
 4:03
 Colors
 Full color
 Viewing Angle
 50°/30°/50°/50°(typical)
 (up/down/left/right contrast>10:1)

Input / Output

Composite
 Input
 BNC (x 3)
 1.0 Vp-p ±2 dB, sync negative
 Output
 BNC (x 3), Loop through Automatic 75 Ω termination
 OPTION IN
 D-sub 9pin connector (x3)
 Remote
 Parallel
 Modular 8 pin (x3)

General

Power Consumption
 Maximum: Approx. 28 W
 (with 3 x BKM-320D)
 Standard:
 Approx. 22 W (without optional input adaptor)
 Power Requirement
 12V DC (with the supplied AC power adaptor)
 AC power adaptor: AC 100 to 240 V, 50/60 Hz
 Peak inrush current
 (1) Power on, current probe method:55A (230V)
 (2) Hot switching inrush current, measured in accordance with European standard
 EN55103-1:8A (230V)
 Operating Temperature
 0 to 35°C (32 to 95° F)
 Operating Humidity
 30 to 85 % (no condensation)
 Storage & Transport Temperature
 -10 to 40°C (14 to 104° F)
 Storage & Transport Humidity
 0 to 90 %
 Operating / Storage / Trans. Pressure
 700 hPa to 1060 hPa
 Dimensions (W x H x D)(inches)
 482 x 88.1 x 47 mm (19 x 3 1/2 x 1 7/8)*¹
 With AC adaptor and BKM-320D:
 482 x 88.1 x 116 mm (19 x 3 1/2 x 4 5/8)
 Mass
 Approx. 2.3Kg (5 lb 1 oz)*²

*¹ Without projecting parts.

*² Excluding supplied accessories.

LMD-4420 Multiple LCD Monitor

Features

Quad screen 4-inch 4:3 aspect ratio high-brightness LCD monitor *4-inch 4:3 aspect ratio LCD panels (x4) *High picture quality provided by high brightness, high contrast, wide viewing angle panels *19-inch EIA standard rack mountable *SDI input (using BKM-320D optional input adaptor) *Low power consumption *Slim and Light *3-step tilt

Supplied Accessories

- AC power adaptor (1)
- AC power cord (1)
- AC plug holder (1)
- Screws for AC adaptor holder (2)
- Operating Instructions (1)

Optional Accessories

- BKM-320D SDI 4:2:2 Input adaptor



Specifications

LCD Panel

- Type
 - a-Si TFT Active Matrix LCD
- Resolution
 - 480 x 234 dots
- Pixel efficiency
 - 99.99%
- Picture Size (H x W)
 - Approx. 82.1 x 61.8 mm (3 1/4 x 2 1/2 inches)
- Diagonal
 - 4 1/8 inches (102.8 mm)
- Aspect
 - 4:03
- Colors
 - Full color
- Viewing Angle
 - 50°/30°/50°/50°(typical)
 - (up/down/left/right contrast>10:1)

Input / Output

- Composite
 - Input
 - BNC (x 4)
 - 1.0 Vp-p ±2 dB, sync negative
 - Output
 - BNC (x 4), Loop through Automatic 75 Ω termination
- OPTION IN
 - D-sub 9pin connector (x4)
- Remote
 - Parallel
 - Modular 8 pin (x4)

General

- Power Consumption
 - Maximum: Approx. 26 W (with 4 x BKM-320D)
 - Standard: Approx. 18 W (without optional input adaptor)
- Power Requirement
 - 12V DC (with the supplied AC power adaptor)
 - AC power adaptor: AC 100 to 240 V, 50/60 Hz
- Peak inrush current
 - (1) Power on, current probe method:35A (230V)
 - (2) Hot switching inrush current, measured in accordance with European standard EN55103-1:8A (230V)
- Operating Temperature
 - 0 to 35°C (32 to 95° F)
- Operating Humidity
 - 30 to 85 % (no condensation)
- Storage & Transport Temperature
 - 10 to 40°C (14 to 104° F)
- Storage & Transport Humidity
 - 0 to 90 %
- Operating / Storage / Trans. Pressure
 - 700 hPa to 1060 hPa
- Dimensions (W x H x D)(inches)
 - 482 x 88.1 x 47 (19 x 3 1/2 x 1 7/8)*¹
 - With AC adaptor and BKM-320D:
 - 482 x 88.1 x 116 (19 x 3 1/2 x 4 5/8)
- Mass
 - Approx. 1.9 Kg (4 lb 3 oz)*²

*1 Without projecting parts.
*2 Excluding supplied accessories.

SONY

Monitor Accessories

BKM-14L	314
BKM-15R	314
BKM-220D	315
BKM-243HS	315
BKM-255DV	316
BKM-30E14	316
BKM-30E20	316
BKM-320D	317
BKM-35H	317
BKM-61D	317
BKM-62HS	318
BKM-68X	318
MB-510	318
MB-522A	319
MB-523	319
MB-524	320
MB-525	320
MB-526	321
MB-527	321
MB-528	322
SMF-600	322
SMF-700	322
SU-558	323
SU-559	323
VF-509	323

BKM-14L Auto Setup Probe

Features

- *External probe for color temperature auto alignment
- *Auto white balance *Color temperature analysis



Applicable Models

BVM-A32E1WM Broadcast Video Monitor
BVM-A20F1M Broadcast Video Monitor
BVM-A14F5M Broadcast Video Monitor

Specifications

Mass

135 g (4 oz)

BKM-15R Monitor control unit

Features

- *Central control unit
- *up to 32 monitors can be controlled



Applicable Models

BVM-A32E1WM Broadcast Video Monitor
BVM-A20F1M Broadcast Video Monitor
BVM-A14F5M Broadcast Video Monitor

Specifications

LAN (10 BASE-T/100 BASE-TX) RJ-45x1
AC 100/240V or DC 5V in

Dimensions

424 (W) x 58.8 (H) x 247.8 (D) mm
(16 3/4 x 2 3/8 x 9 7/8 inches)

Mass

2.1kg (4 lb 10 oz)

BKM-220D SDI 4:2:2 Input Adaptor

SDI 4:2:2 Input Adaptor main unit providing video input and output connectors for the main unit and a decoder for serial digital component signals.



Features

*Decoder for serial digital component signals *Serial digital input and output signal connector

Applicable Models

MEU-WX2 Multiformat Engine Unit

Supplied Accessories

Operating Instructions (1)

Specifications

General

Mass

Approx. 250 g (9 oz)

Voltage

+5 V (supplied from the main unit)

Power consumption

Approx. 1.5 W

Operating conditions

Temperature

0°C to 35°C (32°F to 95°F)

Optimum temperature

20°C to 30°C (68°F to 86°F)

Humidity

0% to 90% (no condensation)

Pressure

700hPa to 1060 hPa

Storage and transport conditions

Temperature

-10°C to 40°C (14°F to 104°F)

Humidity

0% to 90%

Pressure

700 hPa to 1060 hPa

Maximum external dimensions (w/h/d)

100 × 20 × 162 mm (4 × 13/16 × 6 1/2 inches)

Input/output connectors

Digital input

BNC × 2, with monitor output connector

Signal characteristics

Digital component signals

Sampling frequency

Y/R-Y/B-Y: 13.5 MHz

Quantization

10bits/sample

MONITOR OUT

Output signal amplitude:

800 mVp-p ± 10%

Output impedance:

75-ohms unbalanced

Transmission distance

200 m (approx. 656 ft) max. (When using 5C-2V coaxial cables (Fujikura, Inc.) or equivalent.)

BKM-243HS HD SDI&SDI Input Adaptor

HD SDI & SDI Input Adaptor providing video input and output connectors for the main unit and a decoder for HD/D1 serial digital component signals.



Features

*Decoder for serial digital component signals *Serial digital input and output signal connector

Applicable Models

MEU-WX2 Multiformat Engine Unit

Supplied Accessories

Operating Instructions (1)

Specifications

General

Voltage

+3.3 V, +5 V (supplied from the main unit)

Power consumption

Approx. 2 W

Operating conditions

Temperature

0°C to 35°C (32°F to 95°F)

Optimum temperature

20°C to 30°C (68°F to 86°F)

Humidity

0% to 90% (no condensation)

Pressure

700hPa to 1060 hPa

Storage and transport conditions

Temperature

-10°C to 40°C (14°F to 104°F)

Humidity

0% to 90%

Pressure

700 hPa to 1060 hPa

Maximum external dimensions (w/h/d)

100 × 20 × 162 mm (4 × 13/16 × 6 1/2 inches)

Mass

Approx. 250 g (9 oz)

Input/output connectors

Digital input

BNC × 2, with monitor output connector

Signal characteristics

Digital component signals

Sampling frequency

D1-SDI: Y/R-Y/B-Y: 13.5 MHz

HD-SDI: Y/PB/PR: 74.25 MHz

Quantization

10bits/sample

MONITOR OUT

Output signal amplitude:

800 mVp-p ± 10%

Output impedance:

75-ohms unbalanced

Transmission distance

D1-SDI: 200 m (approx. 656 ft) max.

(When using 5C-2V coaxial cables (Fujikura, Inc.) or equivalent.)

HD-SDI: 100 m (approx. 328 ft) max.

(When using 5C-FB coaxial cables (Fujikura, Inc.) or equivalent.)

BKM-255DV DV Input Adaptor

Features

DV Input Adaptor

*Decodes DV signals into Audio/Video signals *Two pairs of 6-pin DV connectors

*400 Mbps communication *Power supply is not supported.

Supplied Accessories

Operating Instructions (1)

Applicable Models

MEU-WX2 Multifformat Engine Unit

Specifications

General

Power requirements

+5 V (supplied from the main unit)

Power consumption

4W

Operating conditions

Temperature

0°C to 35°C (32°F to 95°F)

Optimum temperature

20°C to 30°C (68°F to 86°F)

Humidity

0% to 90% (no condensation)

Pressure

700 hPa to 1060 hPa

Storage and transport conditions

Temperature

-10°C to 40°C (14°F to 104°F)

Humidity

0% to 90%

Pressure

700 hPa to 1060 hPa

Maximum external dimensions (w/h/d)

100 x 20 x 161 mm (4 x 13/16 x 6 3/8 inches)

Mass

Approx. 230 g (0.5 lb)

Input/Output connectors

DV

6-pin (IEEE1394) x 2

Signal characteristics

Video Signals

Sampling frequency

Y/R-Y/B-y

13.5 MHz

Quantization

8 bits/sample

Audio Signals

Channel number

4 ch

Sampling frequency

2ch: 48 kHz

4ch: 32 kHz

Quantization

2ch: 16 bits

4ch: 12 bits



BKM-30E14 Rack Mount Kit

Features

*19-inch EIA standard rack mount kit for 14-inch stand-alone monitors

Applicable Models

BVM-A14F5M Broadcast Video Monitor



BKM-30E20 Rack Mount Kit

Features

*19-inch EIA standard rack mount kit for 20-inch monitors

Applicable Models

BVM-A20F1M Broadcast Video Monitor



BKM-320D SDI 4:2:2 Input adaptor

SDI 4:2:2 Input adaptor

Applicable Models

LMD-4420 Multiple LCD Monitors
LMD-5320 Multiple LCD Monitors
LMD-7220W Multiple LCD Monitors
LMD-2020 LCD Monitors
LMD-1420 LCD Monitors

Specifications

Signal characteristics

Input signal format:
SMPTE259M 270Mbps, 10bit, 4:2:2
component digital video

Input/output connectors

Input: BNC x 1
Output: D-sub9 pin

General

Power requirements: +5V(supplied from the monitor)
Power consumption: Approx.1.7W
Dimensions(W x H X D):
Approx.68 x 20 x 56 mm(2 3/4 x 1 3/16 x 2 1/4 inches)
Mass: Approx.75g(3oz)



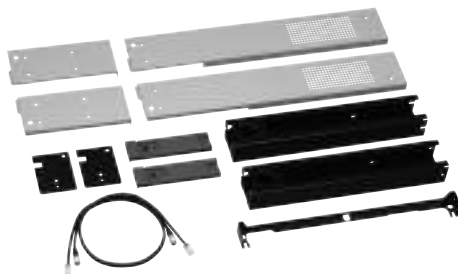
BKM-35H Control Unit Attachment Kit

Features

*Attachment kit to attach BKM-15R to
BVM-A20F1M

Applicable Models

BVM-A20F1M Broadcast Video Monitor



BKM-61D SDI / Analogue multi input adaptor

Features

*SDI input with monitor output and analogue composite
video inputs with loopthrough

Applicable Models

BVM-A32E1WM Broadcast Video Monitor
BVM-A20F1M Broadcast Video Monitor
BVM-A14F5M Broadcast Video Monitor

Specifications

SDI
2x inputs / 1x monitor output (BNC)
Composite PAL/NTSC/SECAM
3x inputs with loop through (BNC)
Y/C
1x input (BNC)

Dimensions

25 (W) x 256 (H) x 248 (D) mm
(1 x 10 1/8 x 9 7/8 inches)

Mass

930g (2 lb 1oz)



BKM-62HS HD SDI / SDI Input Adaptor

Features

*Automatic detection for HD/SD signal *Multi format capability *Individual or dual link HD signal

Applicable Models

BVM-A32E1WM Broadcast Video Monitor

BVM-A20F1M Broadcast Video Monitor

BVM-A14F5M Broadcast Video Monitor

Specifications

HD SDI / SDI

2x inputs with 2x Monitor output (BNC)

accept 4:4:4 HD, 4:2:2HD and 4:2:2

Multi format: 1080/48i, 1080/50i, 576/50p,

480/60p, 1035/60i, 1080/60i, 720/50p,

720/60p

Dimensions

25 (W) x 256 (H) x 248 (D) mm

(1 x 10 1/8 x 9 7/8 inches)

Mass

910g (2 lb)



BKM-68X HD/SD Analogue Component Input Adaptor

Features

*Analogue Component/RGB input

Applicable Models

BVM-A32E1WM Broadcast Video Monitor

BVM-A20F1M Broadcast Video Monitor

BVM-A14F5M Broadcast Video Monitor

Specifications

1x Y/Pb/Pr or RGB input with loop through (BNC)

1x Ext Sync with loop through (BNC)

Multi format: 1080/48i, 1080/50i, 576/50p,

480/60p, 1035/60i, 1080/60i, 720/50p, 720/60p

Dimensions

25 (W) x 256 (H) x 248 (D) mm

(1 x 10 1/8 x 9 7/8 inches)

Mass

900g (1 lb 16 oz)



MB-510 Mounting Attachment

Features

*Mounting attachment for attaching BKM-15R control unit to monitors

Applicable Models

BKM-15R Central Control Unit



MB-522A Mounting Bracket

Features

7U size Rack-Mount Bracket for LMD-172W

Applicable Model

LMD-172W LCD Monitor

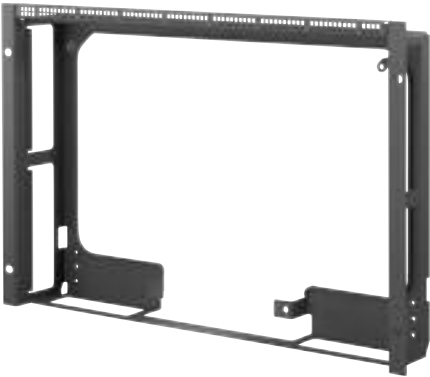
Specifications

Dimensions

483 (W) x 310 (H) x 74 (D) mm
12 1/4 (W) x 19 1/8 (H) x 3 (D) inches

Mass

Approx.1.4kg (3 lb 1oz)



MB-523 Mounting Bracket

Features

10U size Rack-Mount Bracket for LMD-212

Applicable Model

LMD-212 LCD Monitor

Specifications

Dimensions

483 (W) x 444.3 (H) x 87 (D) mm
19 1/8 (W) x 17 1/2 (H) x 3 1/2 (D) inches

Mass

3 Kg
6 lb 10 oz



MB-524 Mounting Bracket

7U size Rack-Mount Bracket for LMD-152

Applicable Models

LMD-152 LCD Monitor

Specifications

Dimensions

Approx. 482 (W) x 308 (H) x 70 (D) mm

Approx. 19 (W) x 12 1/8 (H) x 2 3/4 (D) inches

Mass

Approx. 1.4 kg (3 lb 1 oz)



MB-525 Mounting Bracket

Features

5U size Rack-Mount Bracket

Applicable Models

LMD-9050 LCD Monitor

LMD-9030 LCD Monitor

LMD-9020 LCD Monitor

Specifications

Dimension (W x H x D):

Approx. 484.4 x 222.5 x 158 mm

Mass:

Approx. 1.8kg



MB-526 Mounting Bracket

Features

7U size Rack-Mount Bracket

Applicable Models

LMD-1410 LCD Monitor

LMD-1420 LCD Monitor

Specifications

Dimensions (W x H x D):

Approx. 483 x 310 x 89 mm

Mass:

Approx. 2kg



MB-527 Mounting Bracket

Features

10U size Rack-Mount Bracket

Applicable Models

LMD-2010 LCD Monitor

LMD-2020 LCD Monitor

Specifications

Dimensions (W x H x D):

Approx. 483 x 443 x 73 mm

Mass:

Approx. 4kg



MB-528 Blank Panel

Applicable Models
MB-525

Specifications

Dimensions (W x H x D):

Approx. 216 x 208 x 49 mm

Mass:

Approx. 0.6kg



SMF-600 Display Interface Cable

Features

Cable to connect LMD Series to the
MEU-WX2

Applicable Models

LMD-322W/MEU-WX2 LCD Monitor/Multiformat Engine Unit

LMD-232W/MEU-WX2 LCD Monitor/Multiformat Engine Unit

LMD-172W/MEU-WX2 LCD Monitor/Multiformat Engine Unit

LMD-212/MEU-WX2 LCD Monitor/Multiformat Engine Unit

LMD-152/MEU-WX2 LCD Monitor/Multiformat Engine Unit

Specifications

10 meters length



SMF-700 Monitor Interface Cable

Features

Ethernet and DC power cable for
connection between BKM-15R and
BVM-A series

Applicable Models

BVM-A32E1WM Broadcast Video Monitor

BVM-A20F1M Broadcast Video Monitor

BVM-A14F5M Broadcast Video Monitor

BKM-15R Central Control Unit

Specifications

2 meters length



SU-558 Monitor Stand

Monitor Stand for LMD-Series

Applicable Models

LMD-152 LCD Monitor
LMD-172W LCD Monitor
LMD-212 LCD Monitor
LMD-232W LCD Monitor

Specifications

Mass

4.9 kg (10 lb 13 oz)

Size

240.2 (W) x 250.3 (D) x 191.6 (H) mm
(9 1/2 x 9 7/8 x 7 5/8 inches)

Stand movable range

Tilting angle of a monitor

74°

Tilting angle of the stand arm

64°



SU-559 Floor Stand

Features Monitor Stand for LMD-322W

Supplied Accessories

Front Top Cover (1)
Rear Top Cover (1)
Holders (2)
Screws A (2)
Screws B (4)
Screws C (2)

Applicable Models

LMD-322W LCD Monitor

Specifications

Mass

32 kg (70 lb 9 oz)

Size

602 (W) x 500 (D) x 676 (H) mm
23 11/16 (W) x 19 11/16 (D) x 26 5/8 (H) inches

Tilt angle

45°



VF-509 Monitor ENG Kit

Features

Monitor ENG Kit *Carrying Handle, Viewing Hood and Cable Protector are included.

Applicable Models

LMD-9050 LCD Monitor
LMD-9030 LCD Monitor
LMD-9020 LCD Monitor

Specifications

Mass:

Approx.: 1.3kg



SONY

Audio Mixer & Consoles

DMX-P01	326
SRP-X700P	327
SRP-X500P	328

DMX-P01 Portable digital mixer

Features

*Portable, digital field-mixer designed for ENG/EFP application *Compact (266 x 68 x 206 mm) and lightweight (Approx. 2.2 kg) *24-bit A/D and D/A converters and internal 32-bit DSP for excellent sound quality *4 microphone/line inputs with +48 V mic power (on/off) *2 channels of balanced analog output and AES/EBU digital output (stereo) via XLR-type connectors *Digital cascade input with phono connector *Coaxial output connector for mix-bus output or S/PDIF digital output *Selectable sampling rate: 48 kHz or 96 kHz *Full control of every parameter from the front panel using physical and menu-driven controls *Digital limiters on both inputs and outputs, and digital compressors on outputs *A scene memory recall feature to instantly recall up to ten different user-defined parameter settings or factory default settings *A power-on memory function recalls parameters in three different ways: default factory settings, the last used settings or parameters of one specific scene memory *Easy-to-read backlit LCD panel displays output levels and setup menus, and allows various parameter settings *Meter calibrations can be selected from six types: VU, BBC type, DIN type, NORDIC type, IEC type1, and dBFS *Camera-audio return-level check via 12-pin connector *Panel lock and parameter lock function *Adjustable HPF with two user settings *Operates on eight AA-size alkaline (LR6) batteries or external DC 10 to 15 V power *Spare battery-compartment for quick battery change

Applicable Models

PDW-510 XDCAM Camcorder (DVCAM Recording)
 PDW-510P XDCAM Camcorder (DVCAM Recording)
 PDW-530 XDCAM Camcorder (MPEG IMX/DVCAM Recording)
 PDW-530P XDCAM Camcorder (MPEG IMX/DVCAM Recording)

Supplied Accessories

Spare battery compartment (1)
 Meter scale sheets (6)
 Ferrite clamp filters (2)
 12-pin male connector (1)
 Rubber foot (4)



SRP-X700P Digital Powered Mixer (220/230V)

Features

*Ideal for conference rooms, lecture theaters and other presentation applications *Contains the functions of a high-quality digital audio mixer, power amplifier, wireless mic receiver, RGB/video switcher, feedback reducer and equalizer in a compact 3U high unit *Accepts 3 RGB/component, 3 composite and 3 S-video inputs, and selects 1 RGB/component, 1 composite, and 1 S-video for outputs *High-quality component signals (480p/1080i) and RGB signals with 150 MHz frequency response (1280x1024 pixels, SXGA) *Mixes wireless mic and wired mic inputs with audio from video/DVD players for 10 outputs *24-bit AD/DA conversion at 48kHz sampling frequency *6 mic inputs with phantom powering, 2 wireless mic (or line) inputs, and 2 line inputs *Wireless mic slots for storing 2 WRU-806A/806B tuner modules *200W+200W(4_)/150W+150W(8_)/max.150W (70V Line) digital power amp *Feedback reducer, parametric EQ, LCF (100Hz), compressor/limiter, delay, automatic mixing and flexible signal routing all performed in a digital domain *20 scene memories with quick memory recall capacity *Remote control of SRP-X700P via USB, RS-232C or parallel ports from a PC, a system controller or a control panel *RS-232C output port for remote control of a projector/plasma display unit *Control-S ports for remote control of VCRs, DVD/CD/MD players and video/data projectors *Parallel output port for remote control of environment devices *Supplied software for comprehensive set-up and controls of SRP-X700P



Supplied Accessories

AC power cord (1)
IR Transmitter (1)
Foot (4)
Control software disc* (1)
Operation manual (1)

Optional Peripherals

WRU-806A UHF Synthesized Tuner Unit (64U)
WRU-806A UHF Synthesized Tuner Unit (66U)
WRU-806A UHF Synthesized Tuner Unit (68U)
WRU-806B UHF Synthesized Tuner Unit (6264U)
WRU-806B UHF Synthesized Tuner Unit (6668U)
AN-820A UHF Antenna

*System requirements PC: Windows 98SE, Windows 2000, Windows ME, or Windows XP

SRP-X500P Digital Powered Mixer/Switcher (220V)

Features

*Same as the flagship model SRP-X700P, the SRP-X500P integrates the functionality of the following seven devices to prepare for the scenes of today's modern presentations requiring a wide range of A/V sources, in its compact 3U height, 19-inch rack-mountable chassis *Ideal for conference rooms, lecture theatres and other presentation applications *Contains the functions of a high-quality digital audio mixer *RGB Switcher *Video Switcher *Wireless Tuner Base Unit *Audio Mixer *Power Amplifier *Feedback Reducer *Equalizer *All-In-One Design *High Quality Digital Processor *Versatile Interface *Integrated Wireless Tuner Unit Slots *Comprehensive Remote Control *Built-in Four-Channel Digital Power Amplifier



Supplied Accessories

Power cord (1)
Feet (4)
CD-ROM (1)
Operating Instructions (1)
Antenna (2)

Optional Peripherals

AN-820A UHF Antenna
UWP-X1/X2 Wireless Microphone Package
WRU-806A UHF Synthesizer Tuner Unit
RM-AV3000 series Universal Remote Commander

Wired Microphones

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ECM-77BPT	344
ECM-88B	345
ECM-88BC	346
ECM-88BPT	347
ECM-88FPT	347
F-112	348
F-710	349
F-720	349
F-780	350
AD-KIT88B	351
SAD-H88B	351
SAD-V88B	351
SAD-W88BL	351
SAD-S88B	352
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SAD-88B	352
SAD-P88	352
SAD-W88B	353
AD-R88B	353
AD-C88	353
AD-KIT77	353
SAD-H77B	354
SAD-V77B	354
SAD-W77B	354
SAD-S77	354
AD-R77B	355
AD-C77B	355
AD-C77	355
AD-R66B	355
SAD-H55B	356
AD-R55B	356
SAD-H44B	356
AD-R44B	356

DC-78 Power Supply Unit

Features

- *Designed for use with Sony lavalier microphones equipped with a Sony 4-pin (SMC9-4P) connector
- *Two-way powering: battery operation (using an AA-size (LR6) alkaline battery) or external DC operation (12 to 48 V)
- *Supplied with an SMC9-4S input connector and an XLR 3-pin output connector

Applicable Models

ECM-88 Lavalier Microphone

Specifications

Power requirements:

Internal battery: DC 1.5 V (AA-size (LR6) alkaline battery)

External battery: DC 12 to 48 V

Battery life:

Approx. 6000 h

Input connector:

Sony 4-pin (SMC9-4S)

Output connector:

XLR-3-12C type

Dimensions:

20.0 dia. x 144.0 (h) mm (13/16 x 5 3/4 inches)

Mass:

Approx. 130 g (4.59 oz) including batteries



ECM-166BC Lavalier Microphone

Features

- *Uni-directional, electret condenser microphone
- *Resistant to howling by rejecting indirect sound
- *Ideal for institutional uses and sound contracting applications such as speeches, lectures and conferences
- *Microphone head: 12.5 mm dia x 23.5 mm (1/2 inch dia. x 15/16 inch), 3.5 g (0.12 oz, microphone only)
- *SMC9-4P type connector for use with WRT-822A/822B/860A



Supplied Accessories

Urethane wind screen (1)

Holder clip (1)

Specifications

Capsule type:

Electret Condenser

Directivity:

Uni-directional

Frequency response:

100 Hz to 10 kHz

Sensitivity (0 dB = 1 V/Pa, at 1 kHz):

-45 dB (5.6 mV)

Output impedance (at 1 kHz):

2.5 k Ω \pm 30% (unbalanced)

Dynamic range:

96 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.):

60 dB or more

Inherent noise:

34 dB SPL or less

Max. input sound pressure level:

130 dB SPL

Normal operating voltage:

DC 3 V (supply range: DC 3 to 10 V)

Current drain:

0.4 mA or less

Output connector:

SMC9-4P type

Cable length:

1.2 m (3.9 feet)

Dimensions (microphone head):

12.5 mm dia. x 23.5 mm
(1/2 inch dia. x 15/16 inch)

Mass (microphone head):

3.5 g (0.12 oz)

*0 dB SPL = 2E-5 Pa.

ECM-166BMP Lavalier Microphone

Features

- *Uni-directional, electret condenser microphone
- *Resistant to howling by rejecting indirect sound
- *Ideal for institutional uses and sound contracting applications such as speeches, lectures and conferences
- *Microphone head: 12.5 mm dia x 23.5 mm (1/2 inch dia. x 15/16 inch), 3.5 g (0.12 oz, microphone only)
- *3-pole mini plug with a stable lock mechanism for use with WRT-805A/805B

Supplied Accessories

- Urethane wind screen (1)
- Holder clip (1)
- Operation manual (1)

Specifications

Capsule type:

Electret condenser

Directivity:

Uni-directional

Frequency response:

100 Hz to 10 kHz

Sensitivity (0 dB = 1 V/Pa, at 1 kHz):

-45 dB (5.6 mV)

Output impedance (at 1 kHz):

2.5 k Ω \pm 30% (unbalanced)

Dynamic range:

96 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.):

60 dB or more

Inherent noise:

34 dB SPL or less

Max. input sound pressure level:

130 dB SPL

Normal operating voltage:

DC 3 V (supply range: DC 3 to 10 V)

Current drain:

0.4 mA or less

Output connector:

3.5 mm dia., 3-pole mini plug

Cable length:

1.2 m (3.9 feet)

Dimensions (microphone head):

12.5 mm dia. x 23.5 mm
(1/2 inch dia. x 15/16 inch)

Mass (microphone head):

3.5 g (0.12 oz)

*0 dB SPL = 2E-5 Pa.



ECM-44B Lavalier Microphone

Features

*Omni-directional, electret condenser microphone
 *Superior sound quality *Complete with in-line battery unit
 *Microphone head: 8.5 mm dia. x 14.5 mm (11/32 inch dia. x 19/32 inch), 2g (0.07 oz)
 *Microphone cable length: 3.0 m (9.8 feet)

Supplied Accessories

Holder clip (single/horizontal type) (1)
 Urethane wind screen (1)
 Microphone case (1)

Optional Accessories

SAD-H44B Lavalier-Microphone Holder Clip
 AD-R44B Urethane Windscreen

Specifications

Capsule type:

Electret condenser

Frequency response:

40 Hz to 15 kHz

Directivity:

Omni-directional

Sensitivity (0 dB = 1 V/Pa, at 1 kHz):

-53.0 dB \pm 3 dB

Output impedance (at 1 kHz):

250 Ω \pm 20% (balanced)

Dynamic range:

90 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

62 dB or more

Inherent noise:

32 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

40 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

122 dB SPL

Output connector:

XLR-3-12C type

Cable length:

3.0 m (9.8 feet)

Power supply:

R6 (1.5V) (R6P battery life: approx. 5,000 h)

Normal operating voltage:

DC 1.5 V

Current drain:

0.3 mA or less

Dimensions:

Microphone head:

8.5 mm dia. x 14.5 mm
 (11/32 inch dia. x 19/32 inch)

Power unit:

20.0 mm dia. x 126 mm
 (13/16 inch dia. x 5 inches)

Mass:

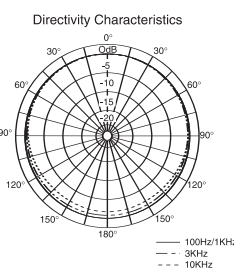
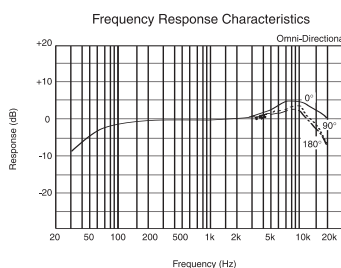
Microphone head:

2 g (0.07 oz)

Total:

121 g (4.3 oz)

*0 dB SPL = 2E-5 Pa.



ECM-44BC Lavalier Microphone

Features

- *Omni-directional, electret condenser microphone
- *Superior sound quality
- *SMC9-4P type connector for use with WRT-822A/822B/860A
- *Microphone head: 8.5 mm dia. x 14.5 mm (11/32 inch dia. x 19/32 inch), 2g (0.07 oz)
- *Microphone cable length: 1.2 m (3.9 feet)



Applicable Models

WRT-8B UHF Synthesized Transmitter
(6668U)

Supplied Accessories

- Holder clip (single/horizontal type) (1)
- Urethane wind screen (1)
- Microphone case (1)

Optional Accessories

- SAD-H44B Lavalier-Microphone Holder Clip
- AD-R44B Urethane Windscreen

Specifications

Capsule type:

Electret condenser

Frequency response:

40 Hz to 15 kHz

Directivity:

Omni-directional

Sensitivity (0 dB = 1 V/Pa, at 1 kHz):

-40 dB (10 mV)

Dynamic range:

90 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

62 dB or more

Inherent noise:

32 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

40 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

122 dB SPL

Output connector:

SMC9-4P type

Cable length:

1.2 m (3.9 feet)

Normal operating voltage:

DC 3 V (supply range: DC 3 to 10 V)

Current drain:

0.3 mA or less

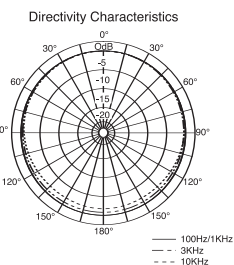
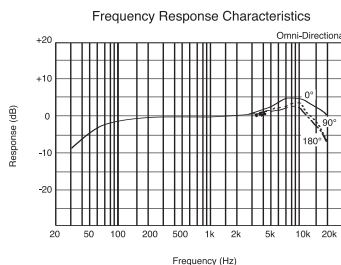
Dimensions (microphone head):

8.5 mm dia. x 14.5 mm
(11/32 inch dia. x 19/32 inch)

Mass (microphone head):

2 g (0.07 oz)

*0 dB SPL = 2E-5 Pa.



ECM-44BMP Lavalier Microphone

Features

- *Omni-directional, electret condenser microphone
- *Superior sound quality *3.5 mm dia., 3-pole mini plug for use with WRT-805A/805B
- *Microphone head: 8.5 mm dia. x 14.5 mm (11/32 inch dia. x 19/32 inch), 2g (0.07 oz)
- *Microphone cable length: 1.2 m (3.9 feet)

Supplied Accessories

- Holder clip (single/horizontal type) (1)
- Urethane wind screen (1)
- Microphone case (1)

Optional Accessories

- SAD-H44B Lavalier-Microphone Holder Clip
- AD-R44B Urethane Windscreen

Specifications

Capsule type:

Electret condenser

Frequency response:

40 Hz to 15 kHz

Directivity:

Omni-directional

Sensitivity (0 dB = 1 V/Pa, at 1 kHz):

-40 dB (10 mV)

Dynamic range:

90 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

62 dB or more

Inherent noise:

32 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

40 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

122 dB SPL

Output connector:

3.5 mm dia., 3-pole mini plug

Cable length:

1.2 m (3.9 feet)

Normal operating voltage:

DC 3 V (supply range: DC 3 to 10 V)

Current drain:

0.3 mA or less

Dimensions (microphone head):

8.5 mm dia. x 14.5 mm

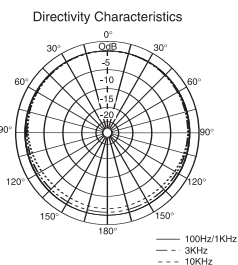
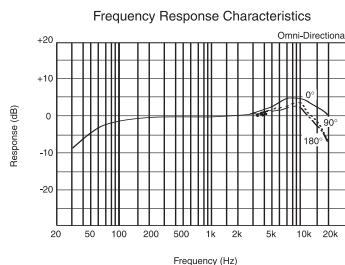
(11/32 inch dia. x 19/32 inch)

Mass (microphone head):

2 g (0.07 oz)



*0 dB SPL = 2E-5 Pa.



ECM-530 Electret Condenser Microphone

Features

- *Compact and high-quality table-top microphone
- *Goose-neck and extendable stem allow flexible microphone positioning for precise voice pick-up
- *2-way powering: internal AA-size battery or external power supply (DC 12 to 48 V)

Supplied Accessories

- Operation manual (1)
- Wind screen (1)

Specifications

Capsule type:

Electret condenser

Frequency response:

70 Hz to 18 kHz

Directivity:

Uni-directional

Effective output level at 1 kHz (0 dB =

1 mW/1 Pa.):

-46.8 dBm

Sensitivity (0 dB = 1 V/1 Pa., at 1 kHz):

-49.0 dB \pm 3.0 dB

Output impedance at 1 kHz (balanced):

150 Ω \pm 20%

Dynamic range:

95 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

63 dB or more

Inherent noise:

31 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Wind noise:

55 dB SPL or less

Max. Input sound pressure level:

126 dB SPL

Microphone connector:

XLR-3-12C type

Cable length:

2 m

Available receptacle:

XLR-3-11C type

Power supply:

Battery power (R6 or LR6) or external power supply (AC-148F or equivalent)

Recommended Sony battery:

R6P (R6P battery life: approx. 5,000 h)

Standard operating voltage:

Battery: 1.5 V

External power: DC 24 to 48 V

Current drain:

Battery: 0.23 mA or less

AC power: 2 mA or less

Dimensions:

12 dia. x 326 to 448 mm

86 dia. mm (Table Stand)

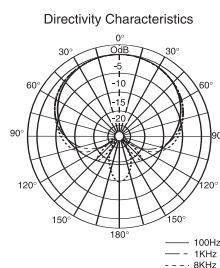
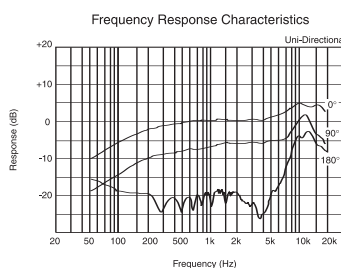
(1/2 dia. x 12 7/8 to 17 3/8 inches)

(Table stand: 3 1/2 dia. inches)

Mass (without battery):

325 g (11.5 oz)

*0 dB SPL = 2E-5 Pa.



ECM-55B Lavalier Microphone

Features

*Omni-directional, electret condenser microphone
 *Complete with in-line battery unit for 2-way powering (AA-size battery or external power supply (DC 12 to 48 V)) *Frequency response tailored for enhanced presence and improved voice quality in lavalier applications *Microphone head: 10.6 mm dia. x 21 mm (7/16 inch dia. x 27/32 inch), 6.5 g (0.2 oz) *Mic cable length: 3.0 m (9.8 feet)



Supplied Accessories

Holder clip (single/horizontal type) (1)
 Holder clip (single/vertical type) (1)
 Metal wind screen (1)
 Microphone case (1)

Optional Accessories

AD-R55B Metal Windscreen
 SAD-H55B Lavalier-Microphone Holder Clip

Power unit:

20.0 mm dia. x 133 mm
 (13/16 inch dia. x 5 1/4 inches)

Mass:

Microphone head:
 6.5 g (0.23 oz)
 Total (without power unit):
 127 g (4.5 oz)

Specifications

Capsule type:

Electret condenser

Frequency response:

30 Hz to 18 kHz

Directivity:

Omni-directional

Sensitivity (0 dB=1 V/Pa, at 1 kHz):

-52.0 dB \pm 2 dB

Output impedance (at 1 kHz):

100 Ω \pm 20% (balanced)

Dynamic range:

98 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

66 dB or more

Inherent noise:

28 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

40 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

126 dB SPL

Output connector:

XLR-3-12C type

Cable length:

3.0 m (9.8 feet)

Power supply:

Battery:

R6 (1.5 V) (R6P battery life: approx.
 5,000 h)

Ext. power:

DC 12 to 48 V

Normal operating voltage:

DC 1.5 V

Current drain:

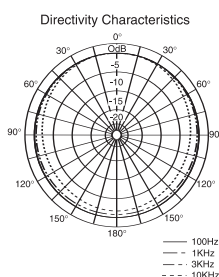
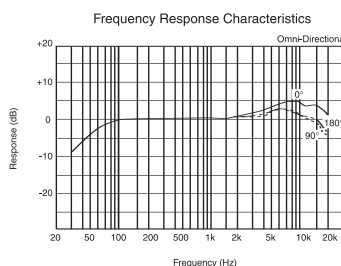
3.5 mA or less

Dimensions:

Microphone head:

10.6 mm dia. x 21 mm
 (7/16 inch dia. x 27/32 inch)

*0 dB SPL = 2E-5 Pa.



ECM-66B Lavalier Microphone

Features

*Designed for instrumental applications *Uni-directional electret condenser microphone *Complete with in-line battery unit for 2-way powering (AA-size battery or external power supply (DC 24 to 48 V)) *Max. 130 dB SPL input sound pressure level *Microphone head: 10.6 mm dia. x 24.3 mm (7/16 inch dia. x 31/32 inch), 7 g (0.24 oz) *Mic cable length: 3.0 m (9.8 feet)



Supplied Accessories

Holder clip (single/horizontal type) (1)
Holder clip (single/vertical type) (1)
Urethane wind screen (1)
Microphone case (1)

Optional Accessories

AD-R66B Urethane Windscreen
SAD-H55B Lavalier-Microphone Holder Clip

Power unit:

20.0 mm dia. x 163 mm
(13/16 inch dia. x 6 2/1 inches)

Mass:

Microphone head:
7 g (0.25 oz)
Total (without power unit):
167 g (5.9 oz)

Specifications

Capsule type:

Electret condenser

*0 dB SPL = 2E-5 Pa.

Directivity:

Uni-directional

Frequency response:

70 Hz to 14 kHz

Sensitivity (0 dB=1 V/Pa, at 1 kHz):

-50.0 dB \pm 2 dB

Output impedance (at 1 kHz):

100 Ω \pm 20% (balanced)

Dynamic range:

101 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

65 dB or more

Inherent noise:

29 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

50 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

130 dB SPL

Output connector:

XLR-3-12C type

Cable length:

3.0 m (9.8 feet)

Power supply:

Battery:

R6 (1.5 V) (R6P battery life: approx.
300 h)

Ext. power:

DC 24 to 48 V

Normal operating voltage:

DC 1.5 V

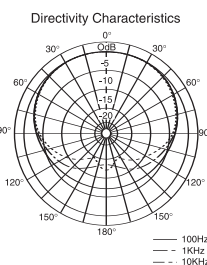
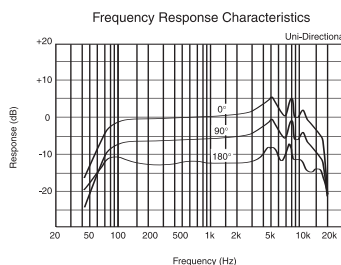
Current drain:

0.3 mA or less

Dimensions:

Microphone head:

10.6 mm dia. x 24.2 mm
(7/16 inch dia. x 31/32 inch)



ECM-670 Electret Condenser Microphone

Features

- *Shotgun-type electret condenser microphone
- *Super-cardioid microphone with minimum sensitivity to ambient noise
- *Compact and light weight design
- *Suitable for mounting on Sony cameras and camcorders
- *External power supply (DC 12 to 48 V)



Supplied Accessories

- Wind screen (1)
- Microphone holder (1)
- Microphone spacer (1)
- Stand adaptor (NS5/8) (1)
- Stand adaptor (W3/8) (1)

Specifications

Capsule type:

Electret condenser

Frequency response:

70 Hz to 16 kHz

Directivity:

Uni-directional

Effective output level at 1 kHz (0 dBm =

1 mW/1 Pa.):

-43.0 dBm

Sensitivity (0 dB = 1 V/1 Pa., at 1 kHz):

-44.0 dB \pm 3.0 dB

Output impedance at 1 kHz (balanced):

200 Ω \pm 20%

Dynamic range:

101 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

70 dB or more

Inherent noise:

24 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7 T):

0 dB SPL or less

Wind noise:

60 dB SPL or less

Max. Input sound pressure level:

125 dB SPL

Microphone connector:

XLR-3-12C type

Available receptacle:

XLR-3-11C type

Power supply:

AC-148F or equivalent

Standard operating voltage:

DC12 to 48 V

Current drain:

2.4 mA or less

Dimensions:

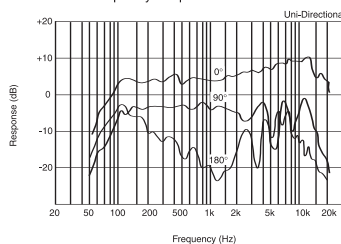
21 dia. x 226 mm

(27/32 dia. x 9 inches)

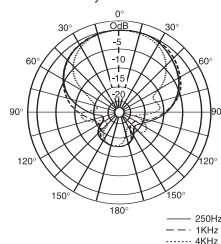
Mass:

165 g (5.8 oz)

Frequency Response Characteristics



Directivity Characteristics



*0 dB SPL = 2E-5 Pa.

ECM-674 Electret Condenser Microphone

Features

*Superior sound quality with a newly developed microphone capsule
 *Excellent sensitivity of -36 dB (0 dB=1 V/Pa.)
 *Low inherent-noise level of less than 17 dB SPL
 *Flat-and-wide frequency response (40 Hz to 20 kHz)
 *Compact and lightweight design - 268 mm in length and 185 g weight
 *Two-way powering - Internal AA-size battery operation or External DC (40 to 52 V) operation
 *Built-in low cut filter switch (M, V) for reducing undesired ambient noise
 *Built-in battery liquid leakage protection circuit

Supplied Accessories

Windscreen (1)
 Microphone holder (1)
 Microphone spacer (1)
 Microphone cable (1)
 Operating instructions (1)

Applicable Models

DVW-970P Digital Betacam Camcorder
 DVW-970 Digital Betacam Camcorder
 MSW-970P MPEG IMX camcorder model
 MSW-970 MPEG IMX camcorder

Specifications

Capsule type
 Electret condenser

Directivity
 Uni-directional (super-cardioid)

Frequency response
 40 Hz to 20 kHz

Sensitivity (at 1 kHz)
 36 dB^(*) ±3 dB

Output impedance (at 1 kHz)
 220 Ω ±20%

Dynamic range
 Phantom: 107 dB or more,
 Battery: 98 dB or more

Signal-to-noise ratio
 77 dB or more
 (IEC179 A-weighted, 1 kHz, 1Pa.)

Inherent noise
 17 dB SPL^(*) or less

Wind noise
 50 dB SPL^(*) or less (with windscreen)

Induction noise from external magnetic field
 0 dB SPL^(*) or less

Maximum input sound pressure level
 Phantom: 124 dB SPL^(*),
 Battery: 115 dB SPL^(*)

Power requirements
 External: DC 40 to 52 V, Battery: 1.5 V

Dimensions
 20 dia. x 268 mm
 (13/16 dia. x 10 5/8 inches)

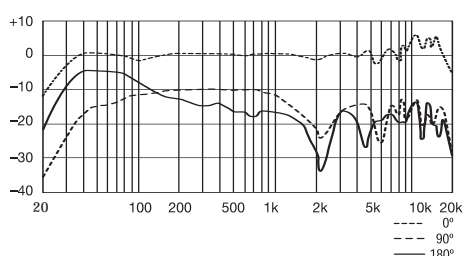
Mass
 Approx. 185 g (6.5 oz) without battery
 Approx. 208 g (7.3 oz) with battery

(*) 0 dB=1 V/Pa., at 1 kHz

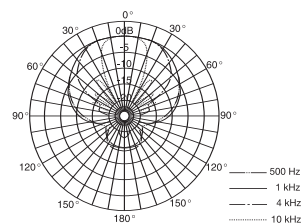
(*) 0 dB=20μ Pa.



Frequency Response Characteristics



Directivity Characteristics



ECM-678 Electret Condenser Microphone.

Features

*Shotgun-type electret condenser microphone *Superior sound quality *Flat and wide frequency response
*Compact design *Built-in low cut filter *High durability and reliability *Suitable for mounting on Sony cameras and camcorders

Supplied Accessories

Windscreen (x1)
Microphone holder (x1)
Microphone spacer (x1)
Carrying case (x1)
Operating instructions (x1)

Specifications

Capsule type
Electret condenser

Directivity
Uni-directional (Super-cardioid)

Frequency response
40 Hz to 20 kHz

Sensitivity (at 1 kHz)
-28 dB*1 \pm 3 dB

Output impedance (at 1 kHz)
200 Ω \pm 20%

Dynamic range
111 dB or more

Signal-to-noise ratio
78 dB or more
(IEC179 A-weighted, 1 kHz, 1Pa.)

Inherent noise
16 dB SPL*2 or less

Wind noise
60 dB SPL*2 or less

Induction noise from external magnetic field
0 dB SPL*2 or less

Maximum input sound pressure level
127 dB SPL*2

Power requirements
External, DC 48 V \pm 4 V

Dimensions
 ϕ 20 x 250 mm (ϕ 13/16 x 9 7/8 inches)

Mass
200 g (7 oz)



*1 0 dB=1 V/Pa., at 1 kHz

*2 0 dB SPL=20 μ Pa.

ECM-77B Lavalier Microphone

Features

*High performance, ultra miniature microphone
 *Omni-directional, electret condenser microphone
 *Microphone head: approx. 5.6 mm dia. x 12.5 mm
 (1/4 inch dia. x 1/2 inch), 1.5 g (0.04 oz) *Frequency
 response: 40 Hz to 20 kHz *Complete with in-line battery
 unit for 2-way powering (AA-size battery or external power
 supply (DC 12 to 48 V)) *Mic cable length: 3.0 m
 (9.8 feet)



Supplied Accessories

Holder clip (single/horizontal type) (1)
 Holder clip (single/vertical type) (1)
 Metal wind screen (1)
 Microphone case (1)

Optional Accessories

AD-KIT77 Lavalier-Microphone Accessory Kit
 SAD-H77B Lavalier-Microphone Holder Clip
 SAD-W77B Lavalier-Microphone Holder Clip
 SAD-V77B Lavalier-Microphone Holder Clip
 AD-C77B Urethane Windscreen
 AD-R77B Metal Windscreen
 AD-C77 Color Urethane Windscreen

Current drain:

0.4 mA or less

Dimensions:

Microphone head:
 5.6 mm dia. x 12.5 mm
 (1/4 inch dia. x 1/2 inch)

Power unit:

20.0 mm dia. x 133 mm
 (13/16 inch dia. x 5 1/4 inches)

Mass:

Microphone head:
 1.5 g (0.05 oz)
 Total:
 122 g (4.3 oz)

Specifications

Capsule type:

Electret condenser

*0 dB SPL = 2E-5 Pa.

Directivity:

Omni-directional

Frequency response:

40 Hz to 20 kHz

Sensitivity (0 dB=1 V/Pa, at 1 kHz):

-52.0 dB \pm 2 dB

Output impedance (at 1 kHz):

150 Ω \pm 20% (balanced)

Dynamic range:

90 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

64 dB or more

Inherent noise:

30 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

40 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

120 dB SPL

Output connector:

XLR-3-12C type

Cable length:

3.0 m (9.8 feet)

Power supply:

Battery:

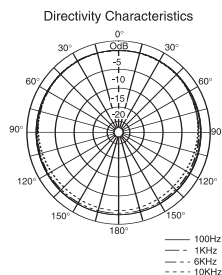
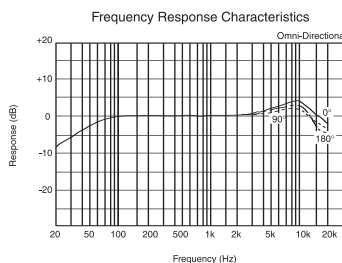
R6 (1.5 V) (R6P battery life: approx.
 5,000 h)

Ext. power:

DC 12 to 48 V

Normal operating voltage:

DC 1.5 V



ECM-77BC Lavalier Microphone

Features

- *High performance, ultra miniature microphone
- *Omni-directional, electret condenser microphone
- *Frequency response: 40 Hz to 20 kHz
- *Microphone head: approx. 5.6 mm dia. x 12.5 mm (1/4 inch dia. x 1/2 inch), 1.5 g (0.04 oz)
- *1.2 m (3.9 feet) cable terminating in a SMC9-4P type connector for use with WRT-822A/822B/860A



Applicable Models

WRT-8B UHF Synthesized Transmitter

Supplied Accessories

Holder clip (single/horizontal type) (1)
 Holder clip (single/vertical type) (1)
 Metal wind screen (1)
 Microphone case (1)

Optional Accessories

AD-KIT77 Lavalier-Microphone Accessory Kit
 SAD-H77B Lavalier-Microphone Holder Clip
 SAD-W77B Lavalier-Microphone Holder Clip
 SAD-V77B Lavalier-Microphone Holder Clip
 AD-C77B Urethane Windscreen
 AD-R77B Metal Windscreen
 AD-C77 Color Urethane Windscreen

Specifications

Capsule type:

Electret condenser

Directivity:

Omni-directional

Frequency response:

40 Hz to 20 kHz

Sensitivity (0 dB=1 V/Pa, at 1 kHz):

-39.0 dB (11.2 mV)

Dynamic range:

90 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

64 dB or more

Inherent noise:

30 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

40 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

120 dB SPL

Output connector:

SMC9-4P type

Cable length:

1.2 m (3.9 feet)

Normal operating voltage:

DC 3 V (supply range: 3 to 10 V)

Current drain:

0.4 mA or less

Dimensions:

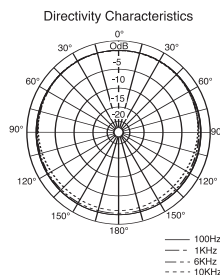
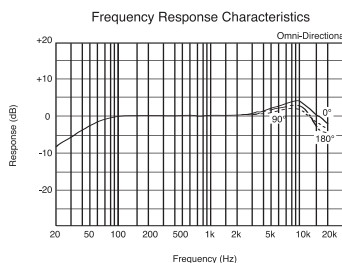
Microphone head:

5.6 mm dia. x 12.5 mm
 (1/4 inch dia. x 1/2 inch)

Mass (microphone head):

1.5 g (0.05 oz)

*0 dB SPL = 2E-5 Pa.



ECM-77BMP Lavalier Microphone

Features

- *High performance, ultra miniature microphone
- *Omni-directional, electret condenser microphone
- *Frequency response: 40 Hz to 20 kHz
- *Microphone head: approx. 5.6 mm dia. x 12.5 mm (1/4 inch dia. x 1/2 inch), 1.5 g (0.04 oz)
- *1.2 m (3.9 feet) cable terminating in a 3.5 mm dia., 3-pole mini plug for use with WRT-805A/805B



Supplied Accessories

- Holder clip (single/horizontal type) (1)
- Holder clip (single/vertical type) (1)
- Metal wind screen (1)
- Microphone case (1)

Optional Accessories

- AD-KIT77 Lavalier-Microphone Accessory Kit
- SAD-H77B Lavalier-Microphone Holder Clip
- SAD-W77B Lavalier-Microphone Holder Clip
- SAD-V77B Lavalier-Microphone Holder Clip
- AD-C77B Urethane Windscreen
- AD-R77B Metal Windscreen
- AD-C77 Color Urethane Windscreen

Specifications

Capsule type:

Electret condenser

Directivity:

Omni-directional

Frequency response:

40 Hz to 20 kHz

Sensitivity (0 dB=1 V/Pa, at 1 kHz):

-39.0 dB (11.2 mV)

Dynamic range:

90 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

64 dB or more

Inherent noise:

30 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

40 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

120 dB SPL

Output connector:

3.5 mm dia., 3-pole mini plug

Cable length:

1.2 m (3.9 feet)

Normal operating voltage:

DC 3 V (supply range: 3 to 10 V)

Current drain:

0.4 mA or less

Dimensions:

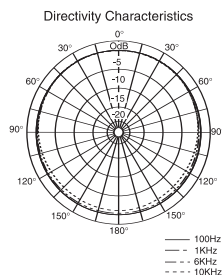
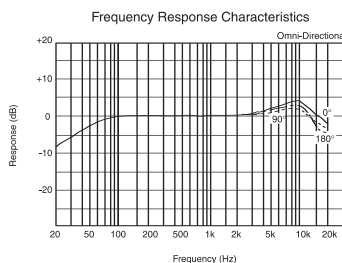
Microphone head:

5.6 mm dia. x 12.5 mm
(1/4 inch dia. x 1/2 inch)

Mass (microphone head):

1.5 g (0.05 oz)

*0 dB SPL = 2E-5 Pa.



ECM-77BPT Lavalier Microphone

Features

- *High performance, ultra miniature microphone
- *Omni-directional, electret condenser microphone
- *Frequency response: 40 Hz to 20 kHz *Pigtail connection, without battery unit or connector
- *Microphone head: approx. 5.6 mm dia. x 12.5 mm (1/4 inch dia. x 1/2 inch), 1.5 g (0.04 oz) *Mic cable length: 3.0 m (9.8 feet)

Supplied Accessories

- Holder clip (single/horizontal type) (1)
- Holder clip (single/vertical type) (1)
- Metal wind screen (1)
- Microphone case (1)

Optional Accessories

- AD-KIT77 Lavalier-Microphone Accessory Kit
- SAD-H77B Lavalier-Microphone Holder Clip
- SAD-W77B Lavalier-Microphone Holder Clip
- SAD-V77B Lavalier-Microphone Holder Clip
- AD-C77B Urethane Windscreen
- AD-R77B Metal Windscreen
- AD-C77 Color Urethane Windscreen

Specifications

Capsule type:

Electret condenser

Directivity:

Omni-directional

Frequency response:

40 Hz to 20 kHz

Sensitivity (0 dB=1 V/Pa, at 1 kHz):

-39.0 dB (11.2 mV)

Dynamic range:

90 dB or more

Signal-to-noise ratio (A-weighted, 1 kHz,

1 Pa.):

64 dB or more

Inherent noise:

30 dB SPL or less

Wind noise (with wind screen, at 2 m/s):

40 dB SPL or less

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Max. input sound pressure level:

120 dB SPL

Cable length:

3.0 m (9.8 feet)

Normal operating voltage:

DC 3 V (supply range: 3 to 10 V)

Current drain:

0.4 mA or less

Dimensions:

Microphone head:

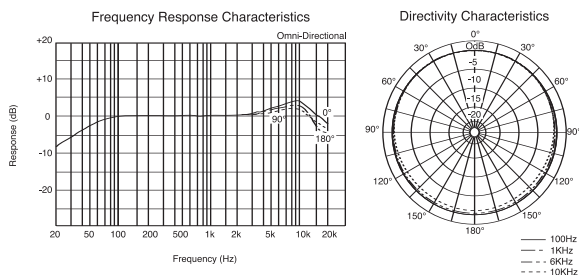
5.6 mm dia. x 12.5 mm

(1/4 inch dia. x 1/2 inch)

Mass (microphone head):

1.5 g (0.05 oz)

*0 dB SPL = 2E-5 Pa.



ECM-88B Lavalier Microphone

Features

The ECM-88B is an extremely miniature, omni-directional electret condenser microphone ideal for quality-critical applications in broadcasting, theater, and field productions.

*Dual-diaphragm mechanism contributes to its high sensitivity and low inherent noise characteristics

*Water-resistant architecture *Flat-and-wide frequency response: 20 Hz to 20 kHz *Ultra-compact microphone capsule: 3.5 x 3.5 x 16.8 mm (5/32 x 5/32 x 11/16 inches)

*Supplied DC-78 DC Power Supply Unit enables two-way powering - internal AA-size (LR6) alkaline-battery operation or DC (12 to 48 V) operation *Mic cable length: 2.5 m (8.2 feet)

Supplied Accessories

Single/horizontal type tie clip (1)

Single/vertical type tie clip (1)

Double/horizontal type tie clip (1)

Urethane windscreen (1)

DC-78 (1)

Microphone case (1)

Ferrite clamp (1)

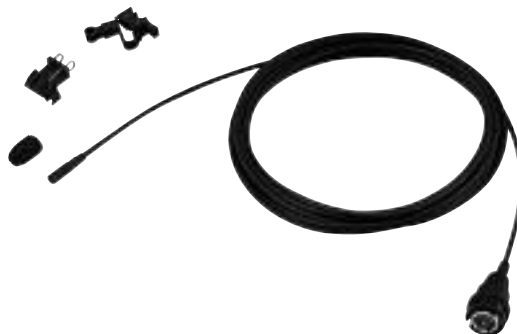
Operating instructions (1)



ECM-88BC Lavalier Microphone

Features

*Ultra miniature, omni-directional electret condenser microphone *Designed for use in broadcasting, theater, and field production applications *Dual -diaphragm mechanism contributes to its high sensitivity and low inherent noise characteristics *Water-resistant architecture *Flat-and-wide frequency response: 20 Hz to 20 kHz *Microphone head: 3.5 mm x 3.5 mm x 16.8 mm (5/32 x 5/32 x 11-16 inch) *2.5 m (8.2 feet) cable with a Sony 4-pin connector (SMC9-4P) for connection to the optional DC-78 power supply unit or the WRT-8B/822A/822B bodypack transmitter



ECM-88 with supplied accessories

Supplied Accessories

Carrying case (1)

Microphone holder (double-pin type) (1)

Microphone holder (tie-clip type) (1)

Urethane windscreen (1)

*10 dB = 1V/Pa., at 1 kHz

**0 dB SPL = 20μ Pa.

Optional Accessories

AD-KIT88 Lavalier-Microphone Accessory Kit

AD-C88 Color Urethane Windscreen

AD-R88B Urethane Windscreen

SAD-88B Lavalier-Microphone Holder Clip

SAD-P88 Lavalier-Microphone Holders

SAD-W88B Lavalier-Microphone Holder Adaptor

DC-78 Power Supply Unit

Specifications

Capsule type:

Electret condenser

Directivity:

Omn-directional

Frequency response:

20 Hz to 20 kHz

Sensitivity (at 1 kHz):

-52 dB* ±2 dB (when used in combination with the DC-78)

-38 dB* (12.6 mV)

Output impedance (at 1 kHz):

100 Ω ±20% (when used in combination with the DC-78)

2.5 kΩ ±30%

Dynamic range:

99 dB or more

Signal-to-noise ratio:

68 dB or more (A-weighted, 1 kHz, 1Pa.)

Inherent noise:

26 dB SPL** or less (A-weighted, 1 kHz, 1Pa.)

Wind noise:

45 dB SPL** or less (when using the supplied windscreen)

Induction noise from external magnetic field:

5 dB SPL** or less (when used in combination with the DC-78)

Maximum input sound pressure level:

125 dB SPL**

Cable length:

2.5 m (8.2 feet)

Output connector:

Sony SMC9-4P

Power requirements:

DC 1.1 to 10.0 V

Dimensions (microphone capsule):

3.5 x 3.5 x 16.8 (h) mm

(5/32 x 5/32 x 11/16 inch)

Mass:

32 g (including microphone cable)

ECM-88BPT Lavalier Microphone

Features

*Ultra miniature, omni-directional electret condenser microphone *Designed for use in broadcasting, theater, and field production applications *Dual -diaphragm mechanism contributes to its high sensitivity and low inherent noise characteristics *Water-resistant architecture *Flat-and-wide frequency response: 20 Hz to 20 kHz *Microphone head: 3.5 mm x 3.5 mm x 16.8 mm (5/32 x 5/32 x 11-16 inch) *2.5 m (8.2 feet) cable without a connector (pig tail)

Supplied Accessories

Microphone holder (double-pin type) (1)
Microphone holder (tie-clip type) (1)
Urethane windscreen (1)
Operating instructions (1)

Optional Accessories

AD-KIT88 Lavalier-Microphone Accessory Kit
SAD-88B Lavalier-Microphone Holder Clip
SAD-P88 Lavalier-Microphone Holders
SAD-W88B Lavalier-Microphone Holder
Adaptor
AD-C88 Color Urethane Windscreen
AD-R88B Urethane Windscreen

Specifications

Capsule type:
Electret condenser
Directivity:
Omni-directional

Frequency response:
20 Hz to 20 kHz
Sensitivity (at 1 kHz):
-38 dB* (12.6 mV)
Output impedance (at 1 kHz):
2.5 k Ω \pm 30%
Dynamic range:
99 dB or more
Signal-to-noise ratio:
68 dB or more (A-weighted, 1 kHz, 1Pa.)
Inherent noise:
26 dB SPL** or less (A-weighted, 1 kHz, 1Pa.)
Wind noise:
45 dB SPL** or less (when using the supplied windscreen)
Induction noise from external magnetic field:
5 dB SPL** or less (when used in combination with the DC-78)

Maximum input sound pressure level:
125 dB SPL**
Cable length:
2.5 m (8.2 feet)
Output connector:
No connector (pig tail)
Power requirements:
DC 1.1 to 10.0 V
Dimensions (microphone capsule):
3.5 x 3.5 x 16.8 (h) mm
(5/32 x 5/32 x 11/16 inch)
Mass:
20 g (including microphone cable)

*10 dB = 1V/Pa., at 1 kHz ** 0 dB SPL = 20 μ Pa.



ECM-88FPT Lavalier Microphone

Features

*Ultra miniature, omni-directional electret condenser microphone *Designed for use in broadcasting, theater, and field production applications *Dual -diaphragm mechanism contributes to its high sensitivity and low inherent noise characteristics *Water-resistant architecture *Flat-and-wide frequency response: 20 Hz to 20 kHz *Beige color *Microphone head: 3.5 mm x 3.5 mm x 16.8 mm (5/32 x 5/32 x 11-16 inch) *2.5 m (8.2 feet) cable without a connector

Specifications

Capsule type:
Electret condenser
Directivity:
Omni-directional
Frequency response:
20 Hz to 20 kHz
Sensitivity (at 1 kHz):
-38 dB* (12.6 mV)
Output impedance (at 1 kHz):
2.5 k Ω \pm 30%
Dynamic range:
99 dB or more
Signal-to-noise ratio:
68 dB or more (A-weighted, 1 kHz, 1Pa.)
Inherent noise:
26 dB SPL** or less (A-weighted, 1 kHz, 1Pa.)

Wind noise:
45 dB SPL** or less (when using the supplied windscreen)
Induction noise from external magnetic field:
5 dB SPL** or less (when used in combination with the DC-78)
Maximum input sound pressure level:
125 dB SPL**
Cable length:
2.5 m (8.2 feet)
Output connector:
No connector (pigtail)
Power requirements:
DC 1.1 to 10.0 V
Dimensions (microphone capsule):
3.5 x 3.5 x 16.8 (h) mm
(5/32 x 5/32 x 11/16 inch)

Mass:
32 g (including microphone cable)

*10 dB = 1V/Pa., at 1 kHz ** 0 dB SPL = 20 μ Pa.



F-112 Dynamic Microphone

Features

*Superior sound quality *Flat-and-wide frequency response *Robust and sophisticated design

Supplied Accessories

Operating instructions (1)

Optional Accessories

UWP-C3 UHF Synthesized Wireless

Microphone Package (62CE7)

UWP-C3 UHF Synthesized Wireless

Microphone Package (67CE7)

Specifications

Capsule type

Dynamic

Directivity

Omni-directional

Frequency response

60 Hz to 18 kHz

Sensitivity (at 1 kHz)

52 dB^(*) ±3 dB

Output impedance (at 1 kHz)

400 Ω ±20%

Dimensions

22/41.4 dia. x 190 mm (7/8 dia. (handle),

1 11/16 dia. (head) x 8 3/4 inches))

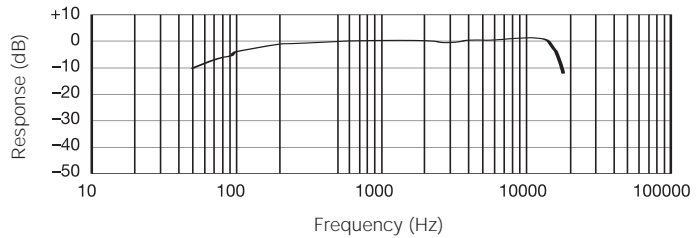
Mass

Approx. 215 g (7.6 oz)

(*) 0 dB=1 V/Pa., at 1 kHz



Frequency Response Characteristics



F-710 Dynamic Microphone

Features

*For multi-purpose applications *Built-in TALK switch
 *High sensitivity with the Neodymium magnet *XLR-3-12C type connector *Frequency response: 70 Hz to 15 kHz
 *Dimensions (diameter x length): 54 x 177 mm (2 1/4 x 7 inches) *Mass: approx. 250 g (8.8 oz)



Supplied Accessories

Microphone holder (1)
 Stand adaptor (NS/8) (1)
 Stand adaptor (W3/8) (1)

Optional Accessories

SAD-700 Microphone Holder
 A-12 Table Stand
 A-25 Table Stand
 A-25N Table Stand
 CRS-3P Cradle Suspension

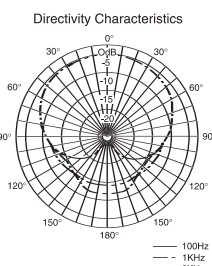
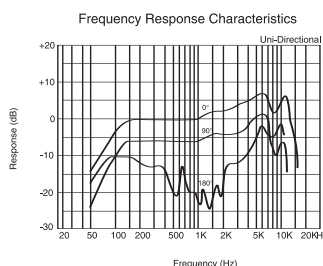
Specifications

Capsule type:
 Dynamic
 Frequency response:
 70 Hz to 15 kHz
 Directivity:
 Uni-directional
 Effective output level at 1 kHz (0 dBm = 1 mW/1 Pa.):
 -56.0 dBm
 Sensitivity (0 dB = 1 V/1 Pa., at 1 kHz):
 -54.0 dB \pm 3.0 dB
 Output impedance at 1 kHz (balanced):
 400 Ω \pm 20%

Induction noise from external magnetic field
 (dB SPL/(1E-7) T):
 5 dB SPL or less
 Wind noise:
 55 dB SPL or less
 Microphone connector:
 XLR-3-12C type
 Available receptacle:
 XLR-3-11C type
 Stand screw/mic holder screw:
 PF1/2-inch thread
 Dimensions (diameter x length):
 54 x 177 mm (2 1/4 x 7 inches)

Mass:
 250 g (8.8 oz)

* 0 dB SPL = 2E-5 Pa.



F-720 Dynamic Microphone

Features

*For multi-purpose applications *Convenient TALK switch for turning on and off the microphone *Vibration proof capsule suspension *XLR-3-12C type connector
 *Frequency response: 50 Hz to 13 kHz *Dimensions: 37.6 dia. x 160 mm (1 1/2 dia. x 6 3/8 inches)
 *Mass: approx. 260 g (9.2 oz)



Supplied Accessories

Microphone holder (1)
 Stand adaptor (NS5/8) (1)
 Stand adaptor (W3/8) (1)

Optional Accessories

A-12 Table Stand
 A-25 Table Stand
 A-25N Table Stand
 CRS-3P Cradle Suspension

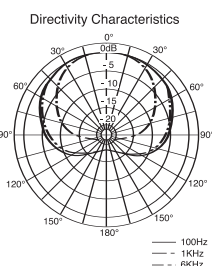
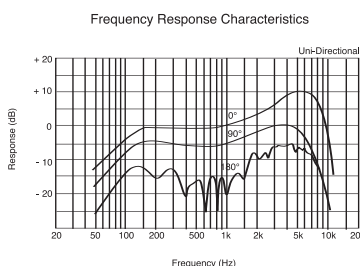
Specifications

Capsule type:
 Dynamic
 Frequency response:
 50 Hz to 13 kHz
 Directivity:
 Uni-directional
 Effective output level at 1 kHz (0 dBm = 1 mW/1 Pa.):
 -60.0 dBm
 Sensitivity (0 dB = 1 V/1 Pa., at 1 kHz):
 -57.0 dB \pm 3.0 dB

Output impedance at 1 kHz (balanced):
 500 Ω \pm 20%
 Induction noise from external magnetic field
 (dB SPL/(1E-7) T):
 10 dB SPL or less
 Wind noise:
 55 dB SPL or less
 Microphone connector:
 XLR-3-12C type
 Available receptacle:
 XLR-3-11C type

Stand screw/mic holder screw:
 PF1/2-inch thread
 Dimensions (diameter x length):
 37.6 x 160 mm (1 1/2 x 6 3/8 inches)
 Mass:
 260 g (9.2 oz)

* 0 dB SPL = 2E-5 Pa.



F-780 Dynamic Microphone

Features

*Designed specifically for critical vocal reproduction in music recording and live performance *Rugged capsules in a resilient body structure *Special AlNiCo Magnet
 *High quality edgewise winding CCAW (Copper Clad Aluminium Wire) voice coil *XLR-3-12C type connector
 *Frequency response: 50 Hz to 18 kHz *Dimensions: 51 dia. x 165 mm (2 1/8 dia. x 6 1/2 inches)
 *Mass: approx. 290 g (10.2 oz)



Supplied Accessories

Microphone holder (1)
 Stand adaptor (NS5/8) (1)
 Stand adaptor (W3/8) (1)

Specifications

Capsule type:

Dynamic

Frequency response:

50 Hz to 18 kHz

Directivity:

Uni-directional

Effective output level at 1 kHz (0 dBm =

1 mW/1 Pa.):

-55.0 dBm

Sensitivity (0 dB = 1 V/1 Pa., at 1 kHz):

-53.0 dB \pm 2.0 dB

Output impedance at 1 kHz (balanced):

400 Ω \pm 20%

Induction noise from external magnetic field

(dB SPL/(1E-7) T):

5 dB SPL or less

Wind noise:

50 dB SPL or less

Microphone connector:

XLR-3-12C type

Available receptacle:

XLR-3-11C type

Stand screw/mic holder screw:

PF1/2-inch thread

Dimensions (diameter x length):

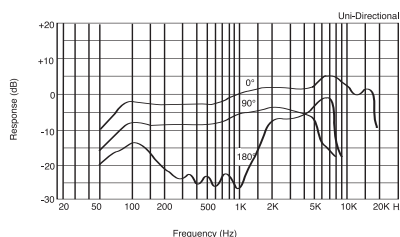
51 x 165 mm (1 1/8 x 6 1/2 inches)

Mass:

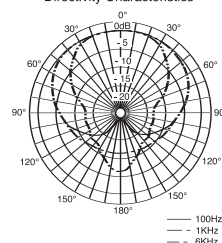
290 g (10.2 oz)

*0 dB SPL = 2E-5 Pa.

Frequency Response Characteristics



Directivity Characteristics



AD-KIT88B Microphone Accessory Kit

Features

The AD-KIT88B is a lavalier microphone accessory kit for the ECM-88 Series.

*Includes four types of microphone clips (single/horizontal, single/vertical, double/horizontal, and safety-pin type tie clip) and six urethane windscreens (red, yellow, green, blue, gray, and black)

Applicable Models

ECM-88B Lavalier Microphone

ECM-88BC Lavalier Microphone

ECM-88BPT Lavalier Microphone



SAD-H88B Lavalier-Microphone Holder Clip

Features

The SAD-H88B is a horizontal type lavalier microphone holder clip for the ECM-88 Series.

*Single/horizontal holder clip for the ECM-88 Series lavalier microphones *Black color *Six pieces are included

Applicable Models

ECM-88B Lavalier Microphone

ECM-88BC Lavalier Microphone

ECM-88BPT Lavalier Microphone



SAD-V88B Lavalier-Microphone Holder Clip

Features

The SAD-V88B is a vertical type lavalier microphone holder clip for the ECM-88 Series.

*Single/vertical holder clip for the ECM-88 Series lavalier microphones *Black color *Six pieces are included

Applicable Models

ECM-88B Lavalier Microphone

ECM-88BC Lavalier Microphone

ECM-88BPT Lavalier Microphone



SAD-W88BL Lavalier-Microphone Holder Clip

Features

The SAD-W88BL is a double/horizontal type lavalier microphone holder clip for the ECM-88 Series.

*Double/horizontal holder clip for the ECM-88 Series lavalier microphones *Black color *Six pieces are included

Applicable Models

ECM-88B Lavalier Microphone

ECM-88BC Lavalier Microphone

ECM-88BPT Lavalier Microphone



SAD-S88B Lavalier-Microphone Holder Clip

Features

The SAD-S88B is a safety-pin type lavalier microphone holder clip for the ECM-88 Series.

*Safety-pin type holder clip for the ECM-88 Series lavalier microphones *Black color *Six pieces are included

Applicable Models

ECM-88B Lavalier Microphone

ECM-88BC Lavalier Microphone

ECM-88BPT Lavalier Microphone



AD-KIT88 Lavalier-Microphone Accessory Kit

Features

*Designed for ECM-88 Series Lavalier microphones

*Includes two types of microphone holders (double-pin and tie-clip), a holder adaptor for dual-microphone operation, and six urethane windscreens (red, yellow, green, blue, gray, and black)

Applicable Models

ECM-88 Lavalier Microphone

ECM-88FPT Lavalier Microphone

ECM-88PT Lavalier Microphone



SAD-88B Lavalier-Microphone Holder Clip

Features

*Single, tie-clip type microphone holder for ECM-88 Series lavalier microphones *Black color *Six pieces are included.

Applicable Models

ECM-88 Lavalier Microphone

ECM-88FPT Lavalier Microphone

ECM-88PT Lavalier Microphone



SAD-P88 Lavalier-Microphone Holders

Features

*Double-pin type microphone holder for ECM-88 Series lavalier microphones *Black color *Six pieces are included.

Applicable Models

ECM-88 Lavalier Microphone

ECM-88FPT Lavalier Microphone

ECM-88PT Lavalier Microphone



SAD-W88B Lavalier-Microphone Holder Adaptor

Features

*Microphone holder adaptor for dual-microphone operation *Used in combination with SAD-P88 or SAD-88B microphone holder *Six pieces are included.

Applicable Models

ECM-88 Lavalier Microphone
ECM-88FPT Lavalier Microphone
ECM-88PT Lavalier Microphone



AD-R88B Urethane Windscreen

Features

*Single/horizontal holder clip for the ECM-77 Series lavalier microphones *Black color *10 pieces are included.

Applicable Models

ECM-88 Lavalier Microphone
ECM-88B Lavalier Microphone
ECM-88BC Lavalier Microphone
ECM-88BPT Lavalier Microphone
ECM-88FPT Lavalier Microphone
ECM-88PT Lavalier Microphone



AD-C88 Color Urethane Windscreen

Features

*Designed for ECM-88 Series Lavalier microphones *Two sets of the six colors (red, yellow, green, blue, gray, and black) are included.

Applicable Models

ECM-88 Lavalier Microphone
ECM-88FPT Lavalier Microphone
ECM-88PT Lavalier Microphone



AD-KIT77 Lavalier-Microphone Accessory Kit

Features

*Designed for ECM-77 Series Lavalier microphones
*Includes three types of microphone holders (horizontal/single type, vertical/single type, and horizontal/dual type) and six urethane windscreens (red, yellow, green, blue, gray, and black)

Applicable Models

ECM-77BC Lavalier Microphone
ECM-77BPT Lavalier Microphone



SAD-H77B Lavalier-Microphone Holder Clip

Features

*Single/horizontal holder clip for the ECM-77 Series lavalier microphones *Black color *10 pieces are included.

Applicable Models

ECM-77B Lavalier Microphone
ECM-77BC Lavalier Microphone
ECM-77BMP Lavalier Microphone
ECM-77BPT Lavalier Microphone
ECM-88PT Lavalier Microphone



SAD-V77B Lavalier-Microphone Holder Clip

Features

*Single/vertical holder clip for the ECM-77 Series lavalier microphones *Black color *10 pieces are included.

Applicable Models

ECM-77B Lavalier Microphone
ECM-77BC Lavalier Microphone
ECM-77BMP Lavalier Microphone
ECM-77BPT Lavalier Microphone



SAD-W77B Lavalier-Microphone Holder Clip

Features

*Double/vertical holder clip for the ECM-77 Series lavalier microphones *Black color *Six pieces are included.

Applicable Models

ECM-77B Lavalier Microphone
ECM-77BC Lavalier Microphone
ECM-77BMP Lavalier Microphone
ECM-77BPT Lavalier Microphone



SAD-S77 Lavalier-Microphone Holder Clip

Features

*Safety pin-type holder clip for the ECM-77 Series lavalier microphones *Silver type *Six pieces are included.



AD-R77B Metal Windscreen

Features

*Designed for ECM-77 Series lavalier microphones

*Black color *Six pieces are included.

Applicable Models

ECM-77B Lavalier Microphone

ECM-77BC Lavalier Microphone

ECM-77BMP Lavalier Microphone

ECM-77BPT Lavalier Microphone



AD-C77B Urethane Windscreen

Features

*Designed for ECM-77 Series lavalier microphones

*Black color *12 pieces are included.

Applicable Models

ECM-77BC Lavalier Microphone

ECM-77BPT Lavalier Microphone



AD-C77 Color Urethane Windscreen

Features

*Designed for ECM-77 Series lavalier microphones *Two sets of the six colors (red, yellow, green, blue, gray, and black) are included.

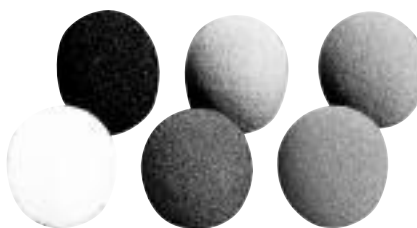
Applicable Models

ECM-77B Lavalier Microphone

ECM-77BC Lavalier Microphone

ECM-77BMP Lavalier Microphone

ECM-77BPT Lavalier Microphone



AD-R66B Urethane Windscreen

Features

*Designed for ECM-66 Series lavalier microphones

*Black color *12 pieces are included

Applicable Models

ECM-66B Lavalier Microphone

ECM-66BPT Lavalier Microphone

SAD-H55B Lavalier-Microphone Holder Clip

Features

- *Single/horizontal holder clip for the ECM-55 Series and ECM-66 Series lavalier microphones
- *Black color
- *10 pieces are included.

Applicable Models

Applicable model

- ECM-55B Lavalier Microphone
- ECM-55BPT Lavalier Microphone
- ECM-66B Lavalier Microphone
- ECM-66BPT Lavalier Microphone



AD-R55B Metal Windscreen

Features

- *Designed for ECM-55 Series lavalier microphones
- *Black color
- *Six pieces are included.

Applicable Models

- ECM-55B Lavalier Microphone
- ECM-55BPT Lavalier Microphone



SAD-H44B Lavalier-Microphone Holder Clip

Features

- *Single/horizontal holder clip for the ECM-44 Series lavalier microphones
- *Black color
- *10 pieces are included.

Applicable Models

- ECM-44B Lavalier Microphone
- ECM-44BC Lavalier Microphone
- ECM-44BMP Lavalier Microphone
- ECM-44BPT Lavalier Microphone



AD-R44B Urethane Windscreen

Features

- *Designed for ECM-44 Series lavalier microphones
- *Black color
- *12 pieces are included.

Applicable Models

- ECM-44B Lavalier Microphone
- ECM-44BC Lavalier Microphone
- ECM-44BMP Lavalier Microphone
- ECM-44BPT Lavalier Microphone



Wireless Microphones

AN-820A	358
CU-E672	358
CU-E700	359
CU-F117	359
CU-F780	360
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UWP-C2/62	370
UWP-C2/67	371
UWP-C3/62	372
UWP-C3/67	373
UWP-S1/62	374
UWP-S1/67	375
UWP-S2/62	376
UWP-S2/67	377
UWP-X1/62	378
UWP-X1/67	379
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WRR-855B/62	383
WRR-855B/67	384
WRR-862B/62	385
WRR-862B/67	386
WRT-807B/62	387
WRT-807B/67	387
WRT-822B/62	388
WRT-822B/67	389
WRT-847B/62	390
WRT-847B/67	391
WRT-8B/62	392
WRT-8B/67	393
WRU-806B/62	394
WRU-806B/67	394
WRU-8N/62	395
WRU-8N/67	395

AN-820A UHF Antenna

Features

*Built-in RF amplifier (10 dB gain) *Easy installation on a wall or in a microphone stand with the supplied stand adaptor *Used in pairs for diversity reception *LED indication for installation check *External power supply provided from the MB-806A, WRR-850A/840A/820A or the WD-820A/880A via coaxial cable

Applicable Models

MB-806A UHF Tuner Base Unit (758 MHz to 862 MHz)

Supplied Accessories

Wall Bracket (1)

Microphone Stand Bracket (1)



CU-E672 Capsule Unit

Features

*Hyper cardioid electret condenser microphone capsule
*A wide variety of applications in news-gathering, sports events and interviews *The supplied windscreen reduces wind noise and popping

Applicable Models

WRT-847B/62 UHF Synthesized Transmitter Unit

WRT-847B/67 UHF Synthesized Transmitter Unit

Supplied Accessories

Urethane windscreen (1)

Specifications

Directivity:

Uni-directional (hyper cardioid)

Frequency response:

50 Hz to 16 kHz

Max. sound pressure level:

120 dB

Dimensions:

φ37 x 172 mm

(φ1 1/2 x 6 7/8 inches)

Mass:

150 g (5.3 oz)



CU-E700 Capsule Unit

Features

*Electret condenser microphone capsule with super cardioid polar pattern *Smooth frequency response for natural sound re-production *Suitable for critical vocal and speech applications

Applicable Models

WRT-847B/62 UHF Synthesized Transmitter Unit

WRT-847B/67 UHF Synthesized Transmitter Unit

Specifications

Directivity:

Uni-directional (super cardioid)

Frequency response:

50 Hz to 18 kHz

Max. sound pressure level:

150 dB

Dimensions:

φ51 x 98 mm

(φ2 1/8 x 3 7/8 inches)

Mass:

170 g (6 oz)



CU-F117 Capsule Unit

Features

*Dynamic microphone capsule with omni-directional polar pattern *Superb rejection for wind noise and popping *Designed for interview applications

Applicable Models

WRT-847B/62 UHF Synthesized Transmitter Unit

WRT-847B/67 UHF Synthesized Transmitter Unit

Supplied Accessories

Urethane windscreen (1)

Specifications

Directivity:

Omni-directional

Frequency response:

50 Hz to 15 kHz

Dimensions:

φ44 x 105 mm

(φ1 3/4 x 4 1/4 inches)

Mass:

170 g (6 oz)



CU-F780 Capsule Unit

Features

*Dynamic microphone capsule with super cardioid polar pattern *Uses the same high quality edgewise winding CCAW voice coil that is employed in the acclaimed Sony F-780 wired microphone *Designed for vocal applications including live music performance

Applicable Models

WRT-847B/62 UHF Synthesized Transmitter

Unit

WRT-847B/67 UHF Synthesized Transmitter

Unit

Specifications

Directivity:

Uni-directional (super cardioid)

Frequency response:

50 Hz to 18 kHz

Dimensions:

φ51 x 90 mm

(φ2 1/8 x 3 5/8 inches)

Mass:

180 g (6.3 oz)



CU-G780 Capsule Unit

Features

*Dynamic microphone capsule with super cardioid polar pattern *Special design, based on the capsule of F-780 microphone, to cope with high sound pressure level vocals and incorporating outstanding feedback rejection *Designed for vocal use

Applicable Models

WRT-847B/62 UHF Synthesized Transmitter

Unit

WRT-847B/67 UHF Synthesized Transmitter

Unit

Specifications

Directivity:

Uni-directional (super cardioid)

Frequency response:

50 Hz to 20 kHz

Dimensions:

φ51 x 90 mm

(φ2 1/8 x 3 5/8 inches)

Mass:

180 g (6.3 oz)



EC-1.5CF Microphone Cable

Features

*Fitted with an XLR-3-11 connector and SMC9-4P connector *Allows a microphone with a 3-pin male XLR output connector to be connected to the WRT-822A/822B/8B bodypack transmitter *Cable length: 1.5 m (4.9 feet)



K-1334 BMP-XLR Conversion Cable (balanced)

Features

*3.5 mm dia. (5/32 inch dia.), 3-pole mini phone jack with a lock mechanism to XLR-3-12C type connector
*Designed for use with WRR-805A wireless portable tuner
*Cable length: 460 mm (1.5 feet)



MB-X6 UHF Tuner Base Unit (798 MHz to 822 MHz)

Features

*Modular design, 1U height 19-inch rack *Accommodates up to six tuner modules for up to six simultaneous channels of operation *Use of WD-850A allows further multi-channel operation *Balanced XLR output connectors for each tuner and mix output *RF input attenuator switch (10 dB/0 dB) *Selectable output level: -58 dBm (for MIC) or -20 dBm (for LINE) at ± 5 kHz deviation at 1kHz modulation *Auto channel assignment of additional receiver modules for instant programming of interference-free multi-channel operation. Automatically skips unusable channels and assigns clear channels. *Supplied passive antennas for rear mounting (with provision for front mounting)



(Tuner modules are not included)



Supplied Accessories

Antenna (2)

AC power cord (1)

Optional Instructions

WD-850A UHF Antenna Divider

Specifications

Receiving frequency range:

798 MHz to 822 MHz

Audio output level:

-20 dBm/-58 dBm at reference deviation

Audio output connector:

XLR-3-32 (x 7, balanced)

Antenna attenuator level:

0 dB or 10 dB

Antenna connector:

BNC-R type (x 2), 50 Ω

Power requirements:

AC 230, 50/60 Hz

Power consumption:

30 W when accommodating six tuner modules

Power supply for antenna boosters:

DC 9 V (max. 100 mA)

Dimensions:

482 (W) x 44 (H) x 285 (D) mm
(19 x 1 3/4 x 11 1/4 inches)

Mass:

5.5 kg (12 lb 2 oz)

MB-8N Tuner Base Unit (CED)

Features

- *Uses a modular design to accommodate up to four WRU-8N receiver modules. The built-in antenna divider allows up to four MB-8N tuner base units to be daisy-chained to form a 16-channel system.
- *Wide system dynamic range: 116 dB (typical)
- *PLL (Phase Locked Loop) frequency synthesized system
- *Space diversity reception for dependable RF reception
- *Advanced control settings from MB-8N front panel
- *Headphone monitor jack on MB-8N front panel
- *Selectable output level: Mic or Line level
- *A D-sub 15-pin connector (unbalanced) for sub audio output
- *Computer-based control over a simple Ethernet environment using supplied software
- *Auto channel assignment of additional receiver modules for instant programming of interference-free multi-channel operation. Automatically skips unusable channels and assigns open channels.
- *AC/DC (auto switch) operation
- *Use of WD-880A antenna divider allows further multi-channel operation
- *1U high 19-inch rack mountable



(The WRU-8N tuner module is not included.)



Supplied Accessories

AC power code (1)
CD-ROM (contains operation instructions and supplied software) (1)

Optional Accessories

WRU-8N UHF Synthesized Tuner Unit (6264U)
WRU-8N UHF Synthesized Tuner Unit (6668U)

Specifications

MB-8N Tuner Base Unit

System dynamic range:

116 dB (typical)

Frequency response:

40 Hz to 20 kHz

Distortion:

1.0 % or less

Audio output level:

-20 dBm (LINE)/-58 dBm (MIC) at reference deviation

Audio output connector:

XLR-3-32 type (x 4), balanced

Sub-audio output connector:

D-sub 15-pin female, unbalanced

Antenna attenuator level:

0 dB, 5 dB, 10 dB or 15 dB

Antenna connector:

Inputs: BNC-R type (x 2), 50 Ω (nominal)
Outputs (for cascade connection): BNC-R type (x 2), 50 Ω (nominal)

Monitor output connector:

6.3 mm dia. stereo mini jack (x 1)

Monitor output level:

12 mW

Network connector:

RJ-45 (x 1), 10BASE-T

Power requirements:

AC 120 V, 50/60 Hz
DC 10 to 24 V

Power available for connected AN-820A

antennas:

9 V, max. 100 mA

Power consumption:

50 W when accommodating four WRU-8N tuner units

Dimensions (W x H x D):

482 x 44 x 300 mm
(19 x 1 3/4 x 11 7/8 inches)

Mass:

3.7 kg (8 lb 6 oz)

Supplied software for computer-based control

System requirements:

PC:

IBM PC/AT compatible

OS:

Windows 98SE/Windows 2000/
Windows Me/Windows NT 4.0 (ST6a)

Memory capacity:

128 MB RAM or more

CPU:

Intel Pentium 400 MHz or faster

Display:

1024 x 768 screen resolution or higher,
256 color display or higher

Network interface:

10/100 BASE-T Network interface card

Hard disc drive:

200 MB or more remaining, after MB-8N supplied software and other applications are installed.

UTX-P1/62 UHF Synthesized Transmitter (62CE7)

Features

*Plug-on transmitter designed for use with the UWP Series tuners *Operates over a wide 24 MHz frequency band within the range of 798 MHz to 822 MHz *Converts a wired microphone to a wireless microphone via an XLR connector *Compact and lightweight body provides balanced handling *Attenuator function allows adjustment of the microphone-input level *Durable connecting mechanism with a microphone for dependable operation *50 mW RF power output for stable and long-distance transmission *MIC/LINE input level switchable *A backlit LCD provides extensive information, including the operating channel number and frequency in MHz, attenuator level, audio-input status, RF-output status, transmitter battery status, and accumulated operating time *An LED indicator for audio-input status *Approximately six hours of continuous operation with two AA-size alkaline (LR6) batteries *Supplied with a soft case



Supplied Accessories

Softcase (1)

Specifications

Oscillator

Crystal-controlled PLL synthesizer

Type of emission

F3E

Carrier frequencies

798 MHz to 822 MHz

(TV channels 62 to 64)

RF power output

50 mW

Antenna

Integral type

Pilot tone signal

32 kHz

Frequency response

50 Hz to 18 kHz (typical)

Reference deviation

±10 kHz (-60 dBV, 1kHz input)

Signal-to-noise ratio

60 dB or more (±10 kHz deviation at

1 kHz modulation, A-weighted)

Audio attenuator adjustment range

0 to 21 dB (in 3 dB steps)

Audio input level

MIC input position: -60 dBV

(at 0 dB attenuator level),

LINE input position: +4 dBu

Audio input connector

XLR-3-11C type

Indicators

LCD

Operating channel number/frequency,

attenuator level, audio input status,

RF-output status, transmitter battery

status, and accumulated operating time

LED

Audio-input status

Power requirements

DC 3.0 V (with two AA-size batteries)

Battery life

Approx. 6 hours with Sony AA-size alkaline

(LR6) batteries at 25 °C (77 °F) at 50 mW

output

Dimensions (W x H x D)

44 x 99 x 36 mm

(1 3/4 x 4 x 1 1/8 inches)

Mass

Approx. 185 g (6.5 oz) including batteries

UTX-P1/67 UHF Synthesized Transmitter (67CE7)

Features

*Plug-on transmitter designed for use with the UWP Series tuners *Operates over a wide 24 MHz frequency band within the range of 838 MHz to 864 MHz *Converts a wired microphone to a wireless microphone via an XLR connector *Compact and lightweight body provides balanced handling *Attenuator function allows adjustment of the microphone-input level *Durable connecting mechanism with a microphone for dependable operation *50 mW RF power output for stable and long-distance transmission *MIC/LINE input level switchable *A backlit LCD provides extensive information, including the operating channel number and frequency in MHz, attenuator level, audio-input status, RF-output status, transmitter battery status, and accumulated operating time *An LED indicator for audio-input status *Approximately six hours of continuous operation with two AA-size alkaline (LR6) batteries *Supplied with a soft case



Supplied Accessories

Softcase (1)

Specifications

Oscillator

Crystal-controlled PLL synthesizer

Type of emission

F3E

Carrier frequencies

838 MHz to 864 MHz

(TV channels 67 to 69)

RF power output

50 mW

Antenna

Integral type

Pilot tone signal

32 kHz

Frequency response

50 Hz to 18 kHz (typical)

Reference deviation

±10 kHz (-60 dBV, 1kHz input)

Signal-to-noise ratio

60 dB or more (±10 kHz deviation at

1 kHz modulation, A-weighted)

Audio attenuator adjustment range

0 to 21 dB (in 3 dB steps)

Audio input level

MIC input position: -60 dBV

(at 0 dB attenuator level),

LINE input position: +4 dBu

Audio input connector

XLR-3-11C type

Indicators

LCD

Operating channel number/frequency,
attenuator level, audio input status,
RF-output status, transmitter battery
status, and accumulated operating time

LED

Audio-input status

Power requirements

DC 3.0 V (with two AA-size batteries)

Battery life

Approx. 6 hours with Sony AA-size alkaline
(LR6) batteries at 25 °C (77 °F) at 50 mW
output

Dimensions (W x H x D)

44 x 99 x 36 mm
(1 3/4 x 4 x 1 1/2 inches)

Mass

Approx. 185 g (6.5 oz) including batteries

UWP-C1/62 UHF Synthesized Wireless Microphone Package (62CE7)

Features

*Consists of an omni-directional lavalier microphone, bodypack transmitter and portable tuner *Suitable for a wide range of applications, from news gathering and interviews to talk shows and conferences *The transmitter and tuner operate over a wide 24 MHz frequency band within the range of 798 MHz to 822 MHz *The bodypack transmitter incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The portable tuner employs a space diversity reception system, angle-adjustable antennas, an RF squelch function and headphone-monitoring facility *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on both the transmitter and tuner *An LCD screen on the transmitter provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status, RF-input level, tuner-battery status and accumulated operating time *The bodypack transmitter is equipped with a 3.5 mm dia., 3-pole mini-jack input connector with lock mechanism, which accepts the output of any lavalier microphone equipped with a 3.5 mm dia. mini plug, as well as the output of the supplied lavalier microphone

Applicable Models

DSR-PD170 DVCAM Camcorder

Supplied Accessories

Windscreen (1)

Microphone-holder clip (1)

Belt clip (for the bodypack transmitter) (1)

Belt clip (for the portable tuner) (1)

Microphone stand adaptor (for the portable tuner) (1)

Screw adaptor (for use in combination with the microphone stand adaptor) (1)

Shoe-mount adaptor (1)

Output cable (3-pole mini-plug/XLR-type) (1)



Specifications

- Lavalier Microphone

Microphone capsule:

Omni-directional, electret condenser type

Bodypack Transmitter

Oscillator:

Crystal-controlled PLL synthesizer

Type of emission:

F3E

Carrier frequencies:

798 MHz to 822 MHz (TV channels 62 to 64)

RF power output:

30 mW or 5 mW (selectable)

Antenna:

1/4 λ wave length wire

Pilot tone signal:

32 kHz

System frequency response:

50 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (-60 dBV*, 1 kHz input)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio attenuator adjustable range:

0 to 21 dB (in 3 dB steps)

Audio input level:

-60 dBV* (at 0 dB attenuator level)

Audio input connector:

3.5 mm (5/32 inch) dia., 3-pole mini jack

Indicators

LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
LED: Power status

Power requirements:

DC 3.0 V
(with two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output

Dimensions:

63 (W) x 100 (H) x 27 (D) mm
(2 1/2 x 4 x 1 1/8 inches)

Mass:

Approx. 140 g (4.9 oz) including batteries

Portable Tuner

Oscillator:

Crystal-controlled PLL synthesizer

Type of reception:

Space diversity

Receiving frequencies:

798 MHz to 822 MHz (TV channels 62 to 64)

Antenna:

1/4 λ wave length wire

Pilot-tone signal:

32 kHz

RF squelch level:

15 dB μ

System frequency response:

50 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (at 1 kHz modulation)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio output connector:

3.5 mm (5/32 inch) dia., 3-pole mini jack (x 1), unbalanced

Audio output level:

-58 dBm

Monitor output connector:

3.5 mm (5/32 inch) dia., stereo mini jack (x 1)

Monitor output level:

5 mW (at 16 Ω)

Indicators

LCD: Operating channel number/frequency, audio-output status, RF-input level, tuner battery status, and accumulated operating time
LED: RF-input status

Power requirements:

DC 3.0 V
(Two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F)

Dimensions:

63.0 (W) x 100.0 (H) x 30.0 (D) mm
(2 1/2 x 4 x 1 3/16 inches)

Mass:

Approx. 180 g (6 oz) including batteries

*0 dBV = 1 Vrms

UWP-C1/67 UHF Synthesized Wireless Microphone Package (67CE7)

Features

*Consists of an omni-directional lavalier microphone, bodypack transmitter and portable tuner *Suitable for a wide range of applications, from news gathering and interviews to talk shows and conferences *The transmitter and tuner operate over a wide 24 MHz frequency band within the range of 838 MHz to 862 MHz *The bodypack transmitter incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The portable tuner employs a space diversity reception system, angle-adjustable antennas, an RF squelch function and headphone-monitoring facility *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on both the transmitter and tuner *An LCD screen on the transmitter provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status, RF-input level, tuner-battery status and accumulated operating time *The bodypack transmitter is equipped with a 3.5 mm dia., 3-pole mini-jack input connector with lock mechanism, which accepts the output of any lavalier microphone equipped with a 3.5 mm dia. mini plug, as well as the output of the supplied lavalier microphone



Applicable Models

DSR-PD170 DVCAM Camcorder

Supplied Accessories

Windscreen (1)

Microphone-holder clip (1)

Belt clip (for the bodypack transmitter) (1)

Belt clip (for the portable tuner) (1)

Microphone stand adaptor (for the portable tuner) (1)

Screw adaptor (for use in combination with the microphone stand adaptor) (1)

Shoe-mount adaptor (1)

Output cable (3-pole mini-plug/XLR-type) (1)

Specifications

- Lavalier Microphone

Microphone capsule:

Omni-directional, electret condenser type

Bodypack Transmitter

Oscillator:

Crystal-controlled PLL synthesizer

Type of emission:

F3E

Carrier frequencies:

838 MHz to 862 MHz (TV channels 67 to 69)

RF power output:

30 mW or 5 mW (selectable)

Antenna:

1/4 λ wave length wire

Pilot tone signal:

32 kHz

System frequency response:

50 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (-60 dBV*, 1 kHz input)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio attenuator adjustable range:

0 to 21 dB (in 3 dB steps)

Audio input level:

-60 dBV* (at 0 dB attenuator level)

Audio input connector:

3.5 mm (5/32 inch) dia., 3-pole mini jack

Indicators

LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
LED: Power status

Power requirements:

DC 3.0 V
(with two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output

Dimensions:

63 (W) x 100 (H) x 27 (D) mm
(2 1/2 x 4 x 1 1/8 inches)

Mass:

Approx. 140 g (4.9 oz) including batteries

Portable Tuner

Oscillator:

Crystal-controlled PLL synthesizer

Type of reception:

Space diversity

Receiving frequencies:

838 MHz to 862 MHz (TV channels 67 to 69)

Antenna:

1/4 λ wave length wire

Pilot-tone signal:

32 kHz

RF squelch level:

15 dB μ

System frequency response:

50 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (at 1 kHz modulation)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio output connector:

3.5 mm (5/32 inch) dia., 3-pole mini jack
(x 1), unbalanced

Audio output level:

-58 dBm

Monitor output connector:

3.5 mm (5/32 inch) dia., stereo mini jack
(x 1)

Monitor output level:

5 mW (at 16 Ω)

Indicators

LCD: Operating channel number/frequency, audio-output status, RF-input level, tuner battery status, and accumulated operating time
LED: RF-input status

Power requirements:

DC 3.0 V
(Two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F)

Dimensions:

63.0 (W) x 100.0 (H) x 30.0 (D) mm
(2 1/2 x 4 x 1 3/16 inches)

Mass:

Approx. 180 g (6 oz) including batteries

*0 dBV = 1 Vrms

UWP-C2/62 UHF Synthesized Wireless Microphone Package (62CE7)

Features

- *Consists of a handheld microphone and portable tuner
- *Suitable for news gathering and for use in PA systems
- *The microphone and tuner operate over a wide 24 MHz frequency band within the range of 798 MHz to 822 MHz
- *The uni-directional, dynamic microphone incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level
- *The portable tuner employs a space diversity reception system and angle-adjustable antennas, an RF squelch function and headphone-monitoring facility
- *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on both the microphone and tuner
- *An internal LCD screen on the microphone provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time
- *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status, RF-input level, tuner-battery status and accumulated operating time



Supplied Accessories

- Shoe-mount adaptor (1)
- Microphone holder (1)
- Screw adaptor (for use in combination with the microphone holder) (1)
- Microphone stand adaptor (for the portable tuner) (1)
- Screw adaptor (for use in combination with the microphone stand adaptor) (1)
- Belt clip (1)
- Output cable (3-pole mini plug/XLR-type) (1)

Specifications

Handheld microphone

Oscillator:
Crystal-controlled PLL synthesizer

Type of emission:
F3E

Carrier frequencies:
798 MHz to 822 MHz (TV channels 62 to 64)

RF power output:
30 mW or 5 mW (selectable)

Antenna:
1/4 λ wave length wire

Pilot tone signal:
32 kHz

System frequency response:
100 Hz to 18 kHz (typical)

Reference deviation:
 ± 5 kHz (94 dB SPL*, 1kHz input)

System signal-to-noise ratio:
60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Microphone capsule:
Dynamic capsule (uni-directional)

Audio attenuator adjustable range:
0 to 21 dB (in 3 dB steps)

Max. input sound pressure level:
151 dB SPL* (at 21 dB attenuator level)

Indicators

LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time

LED: Power status

Power requirements:

DC 3.0 V
(with two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output

Dimensions:

52 dia. x 240 mm
(2 1/8 dia. x 9 1/2 inches)

Mass:

Approx. 300 g (10.6 oz) including batteries

Portable Tuner

Oscillator:

Crystal-controlled PLL synthesizer

Type of reception:

Space diversity

Receiving frequencies:

798 MHz to 822 MHz (TV channels 62 to 64)

Antenna:

1/4 λ wave length wire

Pilot-tone signal:

32 kHz

RF squelch level:

15 dB μ

System frequency response:

100 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (at 1kHz modulation)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio output connector:

3.5 mm (5/32 inch) dia., 3-pole mini jack (x 1), unbalanced

Audio output level:

-58 dBm

Monitor output connector:

3.5 mm (5/32 inch) dia., stereo mini jack (x 1)

Monitor output level:

5 mW (at 16 Ω)

Indicators

LCD: Operating channel number/frequency, audio-output status, RF-input level, tuner battery status, and accumulated operating time

LED: RF-input status

Power requirements:

DC 3.0 V
(Two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F)

Dimensions:

63.0 (W) x 100.0 (H) x 30.0 (D) mm
(2 1/2 x 4 x 1 3/16 inches)

Mass:

Approx. 180 g (6 oz) including batteries

*0 dB SPL = 20 μ Pa.

UWP-C2/67 UHF Synthesized Wireless Microphone Package (67CE7)

Features

- *Consists of a handheld microphone and portable tuner
- *Suitable for news gathering and for use in PA systems
- *The microphone and tuner operate over a wide 24 MHz frequency band within the range of 838 MHz to 862 MHz
- *The uni-directional, dynamic microphone incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level
- *The portable tuner employs a space diversity reception system and angle-adjustable antennas, an RF squelch function and headphone-monitoring facility
- *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on both the microphone and tuner
- *An internal LCD screen on the microphone provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time
- *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status, RF-input level, tuner-battery status and accumulated operating time



Supplied Accessories

- Shoe-mount adaptor (1)
- Microphone holder (1)
- Screw adaptor (for use in combination with the microphone holder) (1)
- Microphone stand adaptor (for the portable tuner) (1)
- Screw adaptor (for use in combination with the microphone stand adaptor) (1)
- Belt clip (1)
- Output cable (3-pole mini plug/XLR-type) (1)

Specifications

Handheld microphone

Oscillator:
Crystal-controlled PLL synthesizer

Type of emission:
F3E

Carrier frequencies:
838 MHz to 862 MHz (TV channels 67 to 69)

RF power output:
30 mW or 5 mW (selectable)

Antenna:
1/4 λ wave length wire

Pilot tone signal:
32 kHz

System frequency response:
100 Hz to 18 kHz (typical)

Reference deviation:
 ± 5 kHz (94 dB SPL*, 1kHz input)

System signal-to-noise ratio:
60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Microphone capsule:
Dynamic capsule (uni-directional)

Audio attenuator adjustable range:
0 to 21 dB (in 3 dB steps)

Max. input sound pressure level:
151 dB SPL* (at 21 dB attenuator level)

Indicators

LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time

LED: Power status

Power requirements:

DC 3.0 V
(with two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output

Dimensions:

52 dia. x 240 mm
(2 1/8 dia. x 9 1/2 inches)

Mass:

Approx. 300 g (10.6 oz) including batteries

Portable Tuner

Oscillator:

Crystal-controlled PLL synthesizer

Type of reception:

Space diversity

Receiving frequencies:

838 MHz to 862 MHz (TV channels 67 to 69)

Antenna:

1/4 λ wave length wire

Pilot-tone signal:

32 kHz

RF squelch level:

15 dB μ

System frequency response:

100 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (at 1kHz modulation)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio output connector:

3.5 mm (5/32 inch) dia., 3-pole mini jack (x 1), unbalanced

Audio output level:

-58 dBm

Monitor output connector:

3.5 mm (5/32 inch) dia., stereo mini jack (x 1)

Monitor output level:

5 mW (at 16 Ω)

Indicators

LCD: Operating channel number/frequency, audio-output status, RF-input level, tuner battery status, and accumulated operating time

LED: RF-input status

Power requirements:

DC 3.0 V
(Two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F)

Dimensions:

63.0 (W) x 100.0 (H) x 30.0 (D) mm
(2 1/2 x 4 x 1 3/16 inches)

Mass:

Approx. 180 g (6 oz) including batteries

*0 dB SPL = 20 μ Pa.

UWP-C3/62 UHF Synthesized Wireless Microphone Package (62CE7)

Features

*The transmitter and tuner operate over a wide 24 MHz frequency band within the range of 798 MHz to 822 MHz
 *The plug-on transmitter converts a wired microphone to a wireless microphone via an XLR connection *Attenuator function of the transmitter allows adjustment of the microphone-input level *50 mW RF power output for stable and long-distance transmission *MIC/LINE input level switchable (Plug-on transmitter) *The portable tuner employs a space diversity reception system and angle-adjustable antennas, an RF squelch function and headphone-monitoring facility *The tuner is equipped with a stereo mini jack with monitor-volume control
 *Approximately six hours of continuous operation with two AA-size batteries on both the transmitter and tuner
 *A backlit LCD on the transmitter provides extensive information, including the operating channel number and frequency in MHz, attenuator level, audio-input status, RF-output status, transmitter-battery status, and accumulated operating time *An LCD screen on the tuner provides extensive information, including the operating channel number and its frequency in MHz, audio-output status, RF-input level, tuner-battery status, and accumulated operating time



Supplied Accessories

Shoe-mount adaptor (1)
 Belt clip (1)
 Output cable (3-pole mini-plug/XLR-type) (1)
 Output cable (3-pole mini-plug/stereo mini-plug) (1)
 Softcase (1)
 Operating instructions (1)

Applicable Models

F-112 Dynamic Microphone

Specifications

Plug-on Transmitter

Oscillator
 Crystal-controlled PLL synthesizer
 Type of emission
 F3E
 Carrier frequencies
 798 MHz to 822 MHz
 (TV channels 62 to 64)
 RF power output
 50 mW
 Antenna
 Integral type
 Pilot-tone signal
 32 kHz
 Frequency response
 50 Hz to 18 kHz (typical)
 Reference deviation
 ± 10 kHz (-60 dBV, 1kHz input)
 Signal-to-noise ratio
 60 dB or more (± 10 kHz deviation at 1 kHz modulation, A-weighted)
 Audio attenuator adjustment range
 0 to 21 dB (in 3 dB steps)

Audio input level
 MIC input position: -60 dBV
 (at 0 dB attenuator level),
 LINE input position: +4 dBu
 Audio input connector
 XLR-3-11C type
 Indicators
 LCD: operating channel number/frequency, attenuator level, audio-input status, RF-output status, transmitter battery status, and accumulated operating time
 LED: audio-input status
 Power requirements
 DC 3.0 V (two AA-size batteries)
 Battery life
 Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 50 mW output
 Dimensions (W x H x D)
 44 x 99 x 35 mm
 (1 3/4 x 4 x 1 7/16 inches)
 Mass
 Approx. 185 g (6.5 oz) including batteries

Portable Tuner

Oscillator
 Crystal-controlled PLL synthesizer
 Type of reception
 Space diversity
 Receiving frequencies
 798 MHz to 822 MHz (TV channels 62 to 64)
 Antenna
 1/4 λ wave length wire
 Pilot-tone signal
 32 kHz
 RF squelch level
 15 dB μ
 Frequency response
 50 Hz to 18 kHz (typical)

Reference deviation
 ± 5 kHz (at 1kHz modulation)
 Signal-to-noise ratio
 60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
 Audio output connector
 3.5 mm (5/32 inch) dia.,
 3-pole mini jack, unbalanced
 Audio output level
 -58 dBm
 Monitor output connector
 3.5 mm (5/32 inch) dia., stereo mini jack
 Monitor output level
 5 mW (at 16 Ω)
 Indicators
 LCD: operating channel number/frequency, audio-output status, RF-input level, tuner-battery status, and accumulated operating time
 LED: RF-input status
 Power requirements
 DC 3.0 V (two AA-size batteries)
 Battery life
 Approx. 6 hours with Sony AA-size batteries at 25 °C (77 °F)
 Dimensions (W x H x D)
 63 x 100 x 30 mm
 (2 1/2 x 4 x 1 3/16 inches)
 Mass
 Approx. 180 g (6 oz) including batteries

UWP-C3/67 UHF Synthesized Wireless Microphone Package (67CE7)

Features

*The transmitter and tuner operate over a wide 24 MHz frequency band within the range of 838 MHz to 864 MHz
 *The plug-on transmitter converts a wired microphone to a wireless microphone via an XLR connection *Attenuator function of the transmitter allows adjustment of the microphone-input level *50 mW RF power output for stable and long-distance transmission *MIC/LINE input level switchable (Plug-on transmitter) *The portable tuner employs a space diversity reception system and angle-adjustable antennas, an RF squelch function and headphone-monitoring facility *The tuner is equipped with a stereo mini jack with monitor-volume control
 *Approximately six hours of continuous operation with two AA-size batteries on both the transmitter and tuner
 *A backlit LCD on the transmitter provides extensive information, including the operating channel number and frequency in MHz, attenuator level, audio-input status, RF-output status, transmitter-battery status, and accumulated operating time *An LCD screen on the tuner provides extensive information, including the operating channel number and its frequency in MHz, audio-output status, RF-input level, tuner-battery status, and accumulated operating time



Supplied Accessories

Shoe-mount adaptor (1)
 Belt clip (1)
 Output cable (3-pole mini-plug/XLR-type) (1)
 Output cable (3-pole mini-plug/stereo mini-plug) (1)
 Softcase (1)
 Operating instructions (1)

Applicable Models

F-112 Dynamic Microphone

Specifications

Plug-on Transmitter

Oscillator
 Crystal-controlled PLL synthesizer
 Type of emission
 F3E
 Carrier frequencies
 838 MHz to 864 MHz
 (TV channels 67 to 69)
 RF power output
 50 mW
 Antenna
 Integral type
 Pilot-tone signal
 32 kHz
 Frequency response
 50 Hz to 18 kHz (typical)
 Reference deviation
 ± 10 kHz (-60 dBV, 1kHz input)
 Signal-to-noise ratio
 60 dB or more (± 10 kHz deviation at 1 kHz modulation, A-weighted)
 Audio attenuator adjustment range
 0 to 21 dB (in 3 dB steps)

Audio input level
 MIC input position: -60 dBV
 (at 0 dB attenuator level),
 LINE input position: +4 dBu
 Audio input connector
 XLR-3-11C type
 Indicators
 LCD: operating channel number/frequency, attenuator level, audio-input status, RF-output status, transmitter battery status, and accumulated operating time
 LED: audio-input status

Power requirements

DC 3.0 V (two AA-size batteries)

Battery life

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 50 mW output

Dimensions (W x H x D)
 44 x 99 x 35 mm
 (1 3/4 x 4 x 1 7/16 inches)

Mass

Approx. 185 g (6.5 oz) including batteries

Portable Tuner

Oscillator
 Crystal-controlled PLL synthesizer
 Type of reception
 Space diversity
 Receiving frequencies
 838 MHz to 864 MHz
 (TV channels 67 to 69)
 Antenna
 1/4 λ wave length wire
 Pilot-tone signal
 32 kHz
 RF squelch level
 15 dB μ
 Frequency response
 50 Hz to 18 kHz (typical)

Reference deviation

± 5 kHz (at 1kHz modulation)

Signal-to-noise ratio
 60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio output connector
 3.5 mm (5/32 inch) dia.,
 3-pole mini jack, unbalanced

Audio output level

-58 dBm

Monitor output connector

3.5 mm (5/32 inch) dia., stereo mini jack

Monitor output level

5 mW (at 16 Ω)

Indicators

LCD: operating channel number/frequency, audio-output status, RF-input level, tuner-battery status, and accumulated operating time
 LED: RF-input status

Power requirements

DC 3.0 V (two AA-size batteries)

Battery life

Approx. 6 hours with Sony AA-size batteries at 25 °C (77 °F)

Dimensions (W x H x D)
 63 x 100 x 30 mm
 (2 1/2 x 4 x 1 3/16 inches)

Mass

Approx. 180 g (6 oz) including batteries

UWP-S1/62 UHF Synthesized Wireless Microphone Package (62CE7)

Features

*Consists of a uni-directional lavalier microphone, bodypack transmitter and half-rack-size tuner *Suitable for use in PA systems *The transmitter and half-rack-size tuner operate over a wide 24 MHz frequency band within the range of 798 MHz to 822 MHz *The bodypack transmitter incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The half-rack-size tuner employs a space diversity reception system, angle-adjustable antennas, an RF squelch function and headphone-monitoring facility *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on the transmitter *An LCD screen on the transmitter provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status and RF-input level *The bodypack transmitter is equipped with a 3.5 mm dia, 3-pole mini-jack input connector with a lock mechanism, which accepts the output of any lavalier microphone equipped with a 3.5 mm dia. mini plug, as well as the output of the supplied lavalier microphone *The half-rack-size tuner is equipped with both XLR (balanced) and 1/4-inch phone (unbalanced) type output connectors. The output level on the XLR-type connector can be switched between MIC and LINE level.



Supplied Accessories

Windscreen (1)
Microphone-holder clip (1)
Belt clip (1)
AC/DC adaptor (1)

Specifications

Lavalier Microphone

Microphone capsule:
Uni-directional, electret condenser type

Bodypack Transmitter

Oscillator:
Crystal-controlled PLL synthesizer
Type of emission:
F3E
Carrier frequencies:
798 MHz to 822 MHz (TV channels 62 to 64)
RF power output:
30 mW or 5 mW (selectable)
Antenna:
1/4 λ wave length wire
Pilot tone signal:
32 kHz
Frequency response:
50 Hz to 18 kHz (typical)
Reference deviation:
 ± 5 kHz (-60 dBV*, 1kHz input)
Signal-to-noise ratio:
60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
Audio attenuator adjustable range:
0 to 21 dB (in 3 dB steps)
Audio input level:
 -60 dBV* (at 0 dB attenuator level)

Audio input connector:
3.5 mm (5/32 inch) dia., 3-pole mini jack
Indicators
LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
LED: Power status
Power requirements:
DC 3.0 V
(with two AA-size alkaline (LR6) batteries)
Battery life:
Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output
Dimensions:
63 (W) x 100 (H) x 27 (D) mm
(2 1/2 x 4 x 1 1/8 inches)
Mass:
Approx. 140 g (4.9 oz) including batteries
Half 19-inch Rack-Size Tuner
Oscillator:
Crystal-controlled PLL synthesizer
Type of reception:
Space diversity
Receiving frequencies:
798 MHz to 822 MHz (TV channels 62 to 64)
Antenna:
1/4 λ wave length wire
Pilot tone signal:
32 kHz
RF squelch level:
25 dB μ

Frequency response:
50 Hz to 18 kHz (typical)
Reference deviation:
 ± 5 kHz (at 1kHz modulation)
Signal-to-noise ratio:
60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
Audio output connector:
XLR-3-32 type (balanced) or 1/4-inch phone jack (unbalanced)
Audio output level:
XLR-3-32: -28 dBm (LINE level) or -58 dBm (MIC level)
1/4-inch phone jack: -30 dBm
Monitor output connector:
1/4-inch stereo mini jack (1)
Monitor output level:
5 mW (at 16 Ω)
Indicators
LCD: Operating channel number/frequency, audio-output status, RF-input level
LED: RF-input status
Power requirements:
DC 9.0 V
Dimensions:
212.0 (W) x 44.0 (H) x 209.0 (D) mm
(8 3/8 x 1 3/4 x 8 1/4 inches)
Mass:
Approx. 1.3 kg (2 lb 14 oz)

*0 dBV = 1 Vrms

UWP-S1/67 UHF Synthesized Wireless Microphone Package (67CE7)

Features

*Consists of a uni-directional lavalier microphone, bodypack transmitter and half-rack-size tuner *Suitable for use in PA systems *The transmitter and half-rack-size tuner operate over a wide 24 MHz frequency band within the range of 838 MHz to 862 MHz *The bodypack transmitter incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The half-rack-size tuner employs a space diversity reception system, angle-adjustable antennas, an RF squelch function and headphone-monitoring facility *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on the transmitter *An LCD screen on the transmitter provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status and RF-input level *The bodypack transmitter is equipped with a 3.5 mm dia, 3-pole mini-jack input connector with a lock mechanism, which accepts the output of any lavalier microphone equipped with a 3.5 mm dia. mini plug, as well as the output of the supplied lavalier microphone *The half-rack-size tuner is equipped with both XLR (balanced) and 1/4-inch phone (unbalanced) type output connectors. The output level on the XLR-type connector can be switched between MIC and LINE level.



Supplied Accessories

Windscreen (1)
Microphone-holder clip (1)
Belt clip (1)
AC/DC adaptor (1)

Specifications

Lavalier Microphone

Microphone capsule:
Uni-directional, electret condenser type

Bodypack Transmitter

Oscillator:
Crystal-controlled PLL synthesizer
Type of emission:
F3E
Carrier frequencies:
838 MHz to 862 MHz (TV channels 67 to 69)
RF power output:
30 mW or 5 mW (selectable)
Antenna:
1/4 λ wave length wire
Pilot tone signal:
32 kHz
Frequency response:
50 Hz to 18 kHz (typical)
Reference deviation:
 ± 5 kHz (-60 dBV*, 1kHz input)
Signal-to-noise ratio:
60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
Audio attenuator adjustable range:
0 to 21 dB (in 3 dB steps)
Audio input level:
 -60 dBV* (at 0 dB attenuator level)

Audio input connector:
3.5 mm (5/32 inch) dia., 3-pole mini jack
Indicators
LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
LED: Power status
Power requirements:
DC 3.0 V
(with two AA-size alkaline (LR6) batteries)
Battery life:
Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output
Dimensions:
63 (W) x 100 (H) x 27 (D) mm
(2 1/2 x 4 x 1 1/8 inches)
Mass:
Approx. 140 g (4.9 oz) including batteries

Half 19-inch Rack-Size Tuner

Oscillator:
Crystal-controlled PLL synthesizer
Type of reception:
Space diversity
Receiving frequencies:
838 MHz to 862 MHz (TV channels 67 to 69)
Antenna:
1/4 λ wave length wire
Pilot tone signal:
32 kHz
RF squelch level:
25 dB μ

Frequency response:
50 Hz to 18 kHz (typical)
Reference deviation:
 ± 5 kHz (at 1kHz modulation)
Signal-to-noise ratio:
60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
Audio output connector:
XLR-3-32 type (balanced) or 1/4-inch phone jack (unbalanced)
Audio output level:
XLR-3-32: -28 dBm (LINE level) or -58 dBm (MIC level)
1/4-inch phone jack: -30 dBm
Monitor output connector:
1/4-inch stereo mini jack (1)
Monitor output level:
5 mW (at 16 Ω)
Indicators
LCD: Operating channel number/frequency, audio-output status, RF-input level
LED: RF-input status
Power requirements:
DC 9.0 V
Dimensions:
212.0 (W) x 44.0 (H) x 209.0 (D) mm
(8 3/8 x 1 3/4 x 8 1/4 inches)
Mass:
Approx. 1.3 kg (2 lb 14 oz)

*0 dBV = 1 Vrms

UWP-S2/62 UHF Synthesized Wireless Microphone Package (62CE7)

Features

*Consists of a handheld microphone and half-rack-size tuner *Suitable for use in PA systems *The microphone and half-rack-size tuner operate over a wide 24 MHz frequency band within the range of 798 MHz to 822 MHz *The uni-directional, dynamic microphone incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The half-rack-size tuner employs a space diversity reception system, angle-adjustable antennas, an RF squelch function and headphone-monitoring facility *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on the microphone *An internal LCD screen on the microphone provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status and RF-input level *The half-rack-size tuner is equipped with both XLR (balanced) and 1/4-inch phone (unbalanced) type output connectors. The output level on the XLR-type connector can be switched between MIC and LINE level.



Supplied Accessories

Microphone holder (1)
Screw adaptor (for use in combination with the microphone holder) (1)
AC/DC adaptor (1)

Specifications

Handheld Microphone

Oscillator:
Crystal-controlled PLL synthesizer
Type of emission:
F3E
Carrier frequencies:
798 MHz to 822 MHz (TV channels 62 to 64)
RF power output:
30 mW or 5 mW (selectable)
Antenna:
1/4 λ wave length wire
Pilot tone signal:
32 kHz
System frequency response:
100 Hz to 18 kHz (typical)
Reference deviation:
 ± 5 kHz (94 dB SPL*, 1 kHz input)
System signal-to-noise ratio:
60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
Microphone capsule:
Dynamic capsule (uni-directional)
Audio attenuator adjustable range:
0 to 21 dB (in 3 dB steps)
Max. input sound pressure level:
151 dB SPL* (at 21 dB attenuator level)

Indicators

LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
LED: Power status

Power requirements:

DC 3.0 V
(with two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output

Dimensions:

52 dia. x 240 mm
(2 1/8 dia. x 9 1/2 inches)

Mass:

Approx. 300 g (10.6 oz) including batteries

Half 19-inch Rack-Size Tuner

Oscillator:

Crystal-controlled PLL synthesizer

Type of reception:

Space diversity

Receiving frequencies:

798 MHz to 822 MHz (TV channels 62 to 64)

Antenna:

1/4 λ wave length wire

Pilot tone signal:

32 kHz

RF squelch level:

25 dB μ

System frequency response:

100 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (at 1 kHz modulation)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio output connector:

XLR-3-32 type (balanced) or 1/4-inch phone jack (unbalanced)

Audio output level:

XLR-3-32: -28 dBm (LINE level) or -58 dBm (MIC level)

1/4-inch phone jack: -30 dBm

Monitor output connector:

1/4-inch stereo mini jack (1)

Monitor output level:

5 mW (at 16 Ω)

Indicators

LCD: Operating channel number/frequency, audio-output status, RF-input level

LED: RF-input status

Power requirements:

DC 9.0 V

Dimensions:

212.0 (W) x 44.0 (H) x 209.0 (D) mm
(8 3/8 x 1 3/4 x 8 1/4 inches)

Mass:

Approx. 1.3 kg (2 lb 14 oz)

*0 dB SPL = 20 μ Pa.

UWP-S2/67 UHF Synthesized Wireless Microphone Package (67CE7)

Features

*Consists of a handheld microphone and half-rack-size tuner
 *Suitable for use in PA systems
 *The microphone and half-rack-size tuner operate over a wide 24 MHz frequency band within the range of 838 MHz to 862 MHz
 *The uni-directional, dynamic microphone incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level
 *The half-rack-size tuner employs a space diversity reception system, angle-adjustable antennas, an RF squelch function and headphone-monitoring facility
 *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on the microphone
 *An internal LCD screen on the microphone provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time
 *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status and RF-input level
 *The half-rack-size tuner is equipped with both XLR (balanced) and 1/4-inch phone (unbalanced) type output connectors. The output level on the XLR-type connector can be switched between MIC and LINE level.



Supplied Accessories

Microphone holder (1)
 Screw adaptor (for use in combination with the microphone holder) (1)
 AC/DC adaptor (1)

Specifications

Handheld Microphone

Oscillator:
 Crystal-controlled PLL synthesizer
 Type of emission:
 F3E
 Carrier frequencies:
 838 MHz to 862 MHz (TV channels 67 to 69)
 RF power output:
 30 mW or 5 mW (selectable)
 Antenna:
 1/4 λ wave length wire
 Pilot tone signal:
 32 kHz
 System frequency response:
 100 Hz to 18 kHz (typical)
 Reference deviation:
 ± 5 kHz (94 dB SPL*, 1 kHz input)
 System signal-to-noise ratio:
 60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
 Microphone capsule:
 Dynamic capsule (uni-directional)
 Audio attenuator adjustable range:
 0 to 21 dB (in 3 dB steps)
 Max. input sound pressure level:
 151 dB SPL* (at 21 dB attenuator level)

Indicators

LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
 LED: Power status

Power requirements:

DC 3.0 V
 (with two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output

Dimensions:

52 dia. x 240 mm
 (2 1/8 dia. x 9 1/2 inches)

Mass:

Approx. 300 g (10.6 oz) including batteries

Half 19-inch Rack-Size Tuner

Oscillator:
 Crystal-controlled PLL synthesizer

Type of reception:

Space diversity

Receiving frequencies:

838 MHz to 862 MHz (TV channels 67 to 69)

Antenna:

1/4 λ wave length wire

Pilot tone signal:

32 kHz

RF squelch level:

25 dB μ

System frequency response:

100 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (at 1 kHz modulation)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio output connector:

XLR-3-32 type (balanced) or 1/4-inch phone jack (unbalanced)

Audio output level:

XLR-3-32: -28 dBm (LINE level) or -58 dBm (MIC level)
 1/4-inch phone jack: -30 dBm

Monitor output connector:

1/4-inch stereo mini jack (1)

Monitor output level:

5 mW (at 16 Ω)

Indicators

LCD: Operating channel number/frequency, audio-output status, RF-input level
 LED: RF-input status

Power requirements:

DC 9.0 V

Dimensions:

212.0 (W) x 44.0 (H) x 209.0 (D) mm
 (8 3/8 x 1 3/4 x 8 1/4 inches)

Mass:

Approx. 1.3 kg (2 lb 14 oz)

*0 dB SPL = 20 μ Pa.

UWP-X1/62 UHF Synthesized Wireless Microphone Package (62CE7)

Features

*Consists of a uni-directional lavalier microphone, bodypack transmitter and tuner module *Suitable for use in PA systems. Tuner modules can be installed into the SRP-X700P/X351P presentation mixer (max. two units), and a maximum of six modules can be installed in the MB-806A tuner base unit. *The transmitter and tuner module operate over a wide 24 MHz frequency band within the range of 798 MHz to 822 MHz *The bodypack transmitter incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The tuner module incorporates a space diversity reception system and an RF squelch function *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on the transmitter *An LCD screen on the transmitter provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status and RF-input level *The bodypack transmitter is equipped with a 3.5 mm dia., 3-pole mini-jack input connector with a lock mechanism, which accepts the output of any lavalier microphone equipped with a 3.5 mm dia. mini plug, as well as the output of the supplied lavalier microphone



Supplied Accessories

Windscreen (1)
Microphone-holder clip (1)
Belt clip (1)

Specifications

Lavalier Microphone

Microphone capsule:
Uni-directional, electret condenser type

Bodypack Transmitter

Oscillator:

Crystal-controlled PLL synthesizer

Type of emission:

F3E

Carrier frequencies:

798 MHz to 822 MHz (TV channels 62 to 64)

RF power output:

30 mW or 5 mW (selectable)

Antenna:

1/4 λ wave length wire

Pilot tone signal:

32 kHz

System frequency response:

50 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (-60 dBV*, 1kHz input)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio attenuator adjustable range:

0 to 21 dB (in 3 dB steps)

Audio input level:

-60 dBV* (at 0 dB attenuator level)

Audio input connector:

3.5 mm (5/32 inch) dia., 3-pole mini jack

Indicators

LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
LED: Power status

Power requirements:

DC 3.0 V
(with two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output

Dimensions:

63 (W) x 100 (H) x 27 (D) mm
(2 1/2 x 4 x 1 1/8 inches)

Mass:

Approx. 140 g (4.9 oz) including batteries

Tuner Module

Oscillator:

Crystal-controlled PLL synthesizer

Type of reception:

Space diversity

Receiving frequencies:

798 MHz to 822 MHz (TV channels 62 to 64)

Antenna:

1/4 λ wave length wire

Pilot-tone signal:

32 kHz

RF squelch level:

25 dB μ

System frequency response:

50 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (at 1kHz modulation)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Indicators

LCD: Operating channel number/frequency, audio-output status, RF-input level
LED: RF-input status

Power requirements:

DC 9.0 V

Dimensions:

56.6 (W) x 25.5 (H) x 121.0 (D) mm
(2 1/2 x 1 1/16 x 4 7/8 inches)

Mass:

Approx. 150 g (5.3 oz)

*0 dBV = 1 Vrms

UWP-X1/67 UHF Synthesized Wireless Microphone Package (67CE7)

Features

*Consists of a uni-directional lavalier microphone, bodypack transmitter and tuner module *Suitable for use in PA systems. Tuner modules can be installed into the SRP-X700P/X351P presentation mixer (max. two units), and a maximum of six modules can be installed in the MB-806A tuner base unit. *The transmitter and tuner module operate over a wide 24 MHz frequency band within the range of 838 MHz to 862 MHz *The bodypack transmitter incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The tuner module incorporates a space diversity reception system and an RF squelch function *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on the transmitter *An LCD screen on the transmitter provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status and RF-input level *The bodypack transmitter is equipped with a 3.5 mm dia., 3-pole mini-jack input connector with a lock mechanism, which accepts the output of any lavalier microphone equipped with a 3.5 mm dia. mini plug, as well as the output of the supplied lavalier microphone



Supplied Accessories

Windscreen (1)
Microphone-holder clip (1)
Belt clip (1)

Specifications

Lavalier Microphone

Microphone capsule:
Uni-directional, electret condenser type

Bodypack Transmitter

Oscillator:

Crystal-controlled PLL synthesizer

Type of emission:

F3E

Carrier frequencies:

838 MHz to 862 MHz (TV channels 67 to 69)

RF power output:

30 mW or 5 mW (selectable)

Antenna:

1/4 λ wave length wire

Pilot tone signal:

32 kHz

System frequency response:

50 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (-60 dBV*, 1kHz input)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Audio attenuator adjustable range:

0 to 21 dB (in 3 dB steps)

Audio input level:

-60 dBV* (at 0 dB attenuator level)

Audio input connector:

3.5 mm (5/32 inch) dia., 3-pole mini jack

Indicators

LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
LED: Power status

Power requirements:

DC 3.0 V
(with two AA-size alkaline (LR6) batteries)

Battery life:

Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output

Dimensions:

63 (W) x 100 (H) x 27 (D) mm
(2 1/2 x 4 x 1 1/8 inches)

Mass:

Approx. 140 g (4.9 oz) including batteries

Tuner Module

Oscillator:

Crystal-controlled PLL synthesizer

Type of reception:

Space diversity

Receiving frequencies:

838 MHz to 862 MHz (TV channels 67 to 69)

Antenna:

1/4 λ wave length wire

Pilot-tone signal:

32 kHz

RF squelch level:

25 dB μ

System frequency response:

50 Hz to 18 kHz (typical)

Reference deviation:

± 5 kHz (at 1kHz modulation)

System signal-to-noise ratio:

60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)

Indicators

LCD: Operating channel number/frequency, audio-output status, RF-input level
LED: RF-input status

Power requirements:

DC 9.0 V

Dimensions:

56.6 (W) x 25.5 (H) x 121.0 (D) mm
(2 1/2 x 1 1/16 x 4 7/8 inches)

Mass:

Approx. 150 g (5.3 oz)

*0 dBV = 1 Vrms

UWP-X2/62 UHF Synthesized Wireless Microphone Package (62CE7)

Features

*Consists of a handheld microphone and tuner module
 *Suitable for use in PA systems. Tuner modules can be installed into the SRP-X700P/X351P presentation mixer (max. two units), and a maximum of six modules can be installed in the MB-806A tuner base unit. *The microphone and tuner module operate over a wide 24 MHz frequency band within the range of 798 MHz to 822 MHz *The uni-directional, dynamic microphone incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The tuner module incorporates a space diversity reception system and an RF squelch function *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on the microphone *An internal LCD screen on the microphone provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status and RF-input level



Supplied Accessories

Microphone holder (1)
 Screw adaptor (for use in combination with the microphone holder) (1)

Specifications

Handheld Microphone

Oscillator:
 Crystal-controlled PLL synthesizer
 Type of emission:
 F3E
 Carrier frequencies:
 798 MHz to 822 MHz (TV channels 62 to 64)
 RF power output:
 30 mW or 5 mW (selectable)
 Antenna:
 1/4 λ wave length wire
 Pilot tone signal:
 32 kHz
 System frequency response:
 100 Hz to 18 kHz (typical)
 Reference deviation:
 ± 5 kHz (94 dB SPL*, 1 kHz input)
 System signal-to-noise ratio:
 60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
 Microphone capsule:
 Dynamic capsule (uni-directional)
 Audio attenuator adjustable range:
 0 to 21 dB (in 3 dB steps)
 Max. input sound pressure level:
 151 dB SPL* (at 21 dB attenuator level)
 Indicators
 LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
 LED: Power status
 Power requirements:
 DC 3.0 V
 (with two AA-size alkaline (LR6) batteries)

Battery life:
 Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output
 Dimensions:
 52 dia. x 240 mm
 (2 1/8 dia. x 9 1/2 inches)
 Mass:
 Approx. 300 g (10.6 oz) including batteries
Tuner Module
 Oscillator:
 Crystal-controlled PLL synthesizer
 Type of reception:
 Space diversity
 Receiving frequencies:
 798 MHz to 822 MHz (TV channels 62 to 64)
 Antenna:
 1/4 λ wave length wire
 Pilot-tone signal:
 32 kHz
 RF squelch level:
 25 dB μ
 System frequency response:
 100 Hz to 18 kHz (typical)
 Reference deviation:
 ± 5 kHz (at 1 kHz modulation)
 System signal-to-noise ratio:
 60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
 Indicators
 LCD: Operating channel number/frequency, audio-output status, RF-input level
 LED: RF-input status
 Power requirements:
 DC 9.0 V
 Dimensions:
 56.6 (W) x 25.5 (H) x 121.0 (D) mm
 (2 1/2 x 1 1/16 x 4 7/8 inches)
 Mass:
 Approx. 150 g (5.3 oz)

*0 dBV = 1 Vrms

UWP-X2/67 UHF Synthesized Wireless Microphone Package (67CE7)

Features

*Consists of a handheld microphone and tuner module
 *Suitable for use in PA systems. Tuner modules can be installed into the SRP-X700P/X351P presentation mixer (max. two units), and a maximum of six modules can be installed in the MB-806A tuner base unit. *The microphone and tuner module operate over a wide 24 MHz frequency band within the range of 838 MHz to 862 MHz *The uni-directional, dynamic microphone incorporates selectable RF-output level (5 mW or 30 mW), and adjustable audio-attenuator level *The tuner module incorporates a space diversity reception system and an RF squelch function *Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries on the microphone *An internal LCD screen on the microphone provides extensive information: operating channel/frequency, attenuator level, RF-output level setting (Low/High), audio-input status, RF-output status, transmitter-battery status and accumulated operating time
 *An LCD screen on the tuner provides extensive information: operating channel/frequency, audio-output status and RF-input level



Supplied Accessories

Microphone holder (1)
 Screw adaptor (for use in combination with the microphone holder) (1)

Specifications

Handheld Microphone

Oscillator:
 Crystal-controlled PLL synthesizer
 Type of emission:
 F3E
 Carrier frequencies:
 838 MHz to 862 MHz (TV channels 67 to 69)
 RF power output:
 30 mW or 5 mW (selectable)
 Antenna:
 1/4 λ wave length wire
 Pilot tone signal:
 32 kHz
 System frequency response:
 100 Hz to 18 kHz (typical)
 Reference deviation:
 ± 5 kHz (94 dB SPL*, 1 kHz input)
 System signal-to-noise ratio:
 60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
 Microphone capsule:
 Dynamic capsule (uni-directional)
 Audio attenuator adjustable range:
 0 to 21 dB (in 3 dB steps)
 Max. input sound pressure level:
 151 dB SPL* (at 21 dB attenuator level)
 Indicators
 LCD: Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio input status, RF-output status, transmitter battery status, and accumulated operating time
 LED: Power status
 Power requirements:
 DC 3.0 V
 (with two AA-size alkaline (LR6) batteries)

Battery life:
 Approx. 6 hours with Sony AA-size alkaline (LR6) batteries at 25 °C (77 °F) at 30 mW output
 Dimensions:
 52 dia. x 240 mm
 (2 1/8 dia. x 9 1/2 inches)
 Mass:
 Approx. 300 g (10.6 oz) including batteries
Tuner Module
 Oscillator:
 Crystal-controlled PLL synthesizer
 Type of reception:
 Space diversity
 Receiving frequencies:
 838 MHz to 862 MHz (TV channels 67 to 69)
 Antenna:
 1/4 λ wave length wire
 Pilot-tone signal:
 32 kHz
 RF squelch level:
 25 dB μ
 System frequency response:
 100 Hz to 18 kHz (typical)
 Reference deviation:
 ± 5 kHz (at 1 kHz modulation)
 System signal-to-noise ratio:
 60 dB or more (± 5 kHz deviation at 1 kHz modulation, A-weighted)
 Indicators
 LCD: Operating channel number/frequency, audio-output status, RF-input level
 LED: RF-input status
 Power requirements:
 DC 9.0 V
 Dimensions:
 56.6 (W) x 25.5 (H) x 121.0 (D) mm
 (2 1/2 x 1 1/16 x 4 7/8 inches)
 Mass:
 Approx. 150 g (5.3 oz)

*0 dBV = 1 Vrms

WD-850A UHF Antenna Divider (758 MHz to 862 MHz)

Features

*Provides diversity output for up to four receivers
*Multi-channel operation by combination with tuners such as the MB-8N and WRU-8N, or MB-806A and WRU-806/806B *Cascade output can be used for an additional antenna divider or receiver *Two pair of antenna input connectors for up to four AN-820A antennas to expand the operating area of a wireless microphone system *DC 9V power supply for the AN-820A UHF antennas via coaxial cable



Supplied Accessories

50 ohms BNC terminators (6)

Specifications

Frequency range:

758 MHz to 862 MHz

Channel distribution:

Inputs: 2 pairs

Outputs: 4 pairs

Input/output Impedance:

50 Ω

Cascade output:

1 pair

Power supply for antenna booster (supplied from antenna input connectors):

DC 9 V

Power consumption:

6 W +outlet 300 W max.

Dimensions (W x H x D):

482 x 44 x 300 mm

(19 x 1 3/4 x 11 7/8 inches)

Mass:

4.2 kg (9 lb 4 oz)

WRR-855B/62 UHF Synthesized Diversity Tuner (62CE7)

Features

*Slot-in type space diversity tuner designed for use with Sony Betacam SX camcorders and HDCAM camcorder (HDW-750 only) *Weatherproof structure *Compact design and lightweight design; 280 g (9.9 oz) *A D-sub 15-pin connector for audio output to a Sony professional camcorder and for receiving its power supply from the HDCAM camcorder (HDW-750 only) or Betacam SX camcorder *Operates in the 798 MHz to 822 MHz (TV channels 62 to 64) UHF frequency band *LED indicators for AF/RF conditions *LCD indicator for operating channel *Switchable RF muting; ON (10 dB μ) or OFF *Use of the BTA-801 (optional portable tuner mount adaptor) allows the WRR-855B to be mounted on Sony professional camcorders and powered from the camcorder via a DC cable supplied with BTA-801 *Use of the CA-WR855 (optional camera adaptor) allows the WRR-855B to be mounted on Sony DSR-300/500WS DVCAM camcorders and powered from the camcorder.

Supplied Accessories

Antenna (2)

Specifications

Receiving channel:

1 channel

Receiving frequency:

798 MHz to 822 MHz

Oscillator:

1st: PLL synthesizer, 2nd: Crystal oscillator

De-emphasis:

50 μ s

Reference deviation:

± 5 kHz deviation at 1 kHz modulation
(Max. deviation: ± 40 kHz modulation)

Selectivity:

60 dB or more at ± 250 kHz

Spurious rejection:

80 dB or more

Frequency range:

40 to 18 kHz (typical)

Signal-to-noise ratio:

60 dB or more at 60 dB μ RF input at reference deviation, A-weighted

RF muting level:

10 dB μ or OFF selectable

Audio output level:

-40 dBm at reference deviation

Audio output connector:

D-sub 15-pin (1), balanced

Antenna connector:

BNC-R type (2), 50 Ω (nominal)
impedance

Operating voltage:

DC 7 V

Current consumption:

200 mA or less at external DC 7 V

Dimensions (W x H x D):

88.0 x 119.0 x 31.3 mm
(3 1/2 x 4 3/4 x 1 1/4 inches)

Mass:

280 g (9.9 oz)



WRR-855B/67 UHF Synthesized Diversity Tuner (67CE7)

Features

*Slot-in type space diversity tuner designed for use with Sony Betacam SX camcorders and HDCAM camcorder (HDW-750 only) *Weatherproof structure *Compact design and lightweight design; 280 g (9.9 oz) *A D-sub 15-pin connector for audio output to a Sony professional camcorder and for receiving its power supply from the HDCAM camcorder (HDW-750 only) or Betacam SX camcorder *Operates in the 838 MHz to 862 MHz UHF frequency band (TV channels 67 and 69) *LED indicators for AF/RF conditions *LCD indicator for operating channel *Switchable RF muting; ON (10 dB μ) or OFF *Use of the BTA-801 (optional portable tuner mount adaptor) allows the WRR-855B to be mounted on Sony professional camcorders and powered from the camcorder via a DC cable supplied with BTA-801 *Use of the CA-WR855 (optional camera adaptor) allows the WRR-855B to be mounted on Sony DSR-300/500WS DVCAM camcorders and powered from the camcorder.

Supplied Accessories

Antenna (2)

Optional Accessories

CA-WR855 Camera Adaptor

BTA-801 Portable Tuner Mount Adaptor

Specifications

Receiving channel number:

1 channel

Receiving frequency:

838 MHz to 862 MHz

Oscillator:

1st: PLL synthesizer, 2nd: Crystal oscillator

De-emphasis:

50 μ s

Reference deviation:

± 5 kHz deviation at 1 kHz modulation

(Max. deviation: ± 40 kHz modulation)

Selectivity:

60 dB or more at ± 250 kHz

Spurious rejection:

80 dB or more

Frequency range:

40 to 18 kHz (typical)

Signal-to-noise ratio:

60 dB or more at 60 dB μ RF input at reference deviation, A-weighted

RF muting level:

10 dB μ or OFF selectable

Audio output level:

-40 dBm at reference deviation

Audio output connector:

D-sub 15-pin (1), balanced

Antenna connector:

BNC-R type (2), 50 Ω (nominal) impedance

Operating voltage:

DC 7 V

Current consumption:

200 mA or less at external DC 7 V

Dimensions (W x H x D):

88.0 x 119.0 x 31.3 mm

(3 1/2 x 4 3/4 x 1 1/4 inches)

Mass:

280 g (9.9 oz)



WRR-862B/62 UHF Synthesized Dual Diversity Tuner (62CE7)

Features

*Receives two independent RF signals on two separate channels *Operates over a 24 MHz frequency band within the range of 798 MHz to 822 MHz (TV channels 62 to 64) *A space diversity system is employed on both channels to eliminate signal dropout and provide stable reception *Compact and lightweight body; 400 g (14.1 oz) including batteries *Easily mounts on Sony professional camcorders with the supplied attachment kit and case (*) *Two SMC9-4S (Sony 4-pin) audio output connectors on the top panel *Rugged, diecast magnesium frame *LED indicators for each channel to indicate RF input level (green/red indication), diversity reception status and transmitter battery alarm *LCD screen for each channel to indicate operating channel/frequency, AF output level, RF input level, receiver battery status and accumulated battery operating time *Five hours of continuous operation with four AA-size (LR6) alkaline batteries *Capable of operating on external power from Sony camcorders via the supplied DC cable *Selectable RF squelch threshold: 5 dB μ , 10 dB μ , 15 dB μ and OFF *A stereo mini jack for monitoring the output sound (switchable: Tuner 1/2/mixed) with headphones (A monitor volume control is also included.)

(*) A-8278-057-A mounting bracket (service part) may also be required.



Applicable Models

DVW-790P Digital Betacam Camcorder
MSW-970P MPEG IMX Camcorder
PDW-510 XDCAM Camcorder (DVCAM Recording)
PDW-530 XDCAM Camcorder (MPEG IMX/DVCAM Recording)

Supplied Accessories

Attachment case (1)
Mounting plate (1)
DC cable (1)
Output cable (2)
Antenna (2)

Specifications

Receiving channel number:
2 channels
Receiving frequencies:
2 frequencies within 798 MHz to 822 MHz
Local oscillators:
1st: PLL synthesizer, 2nd: Crystal oscillator
De-emphasis:
50 μ s
System dynamic range:
96 dB or more (101 dB typical)
Reference deviation:
 \pm 5 kHz deviation at 1 kHz modulation
(Max. deviation: \pm 40 kHz deviation at 1 kHz modulation)
Selectivity:
60 dB or more at \pm 250 kHz
Spurious rejection:
70 dB or more
Frequency response:
40 Hz to 18 kHz (typical)

Signal-to-noise ratio:
60 dB or more (65 dB typical) at 60 dB μ
RF input at reference deviation,
A-weighted
RF squelch level:
5 dB μ , 10 dB μ , 15 dB μ or OFF
Audio output level:
-58 dBm at reference deviation
Audio output connector:
SMC9-4S (Sony 4-pin, x 2), balanced
Antenna connector:
BNC-R (x 2), 50 Ω (nominal) impedance
Monitor output:
3.5 mm dia. mini jack (x 1, 5 mW), Tuner 1/2/mixed selectable
Operating voltage:
Batteries: DC 6 V (four AA-size (LR6) alkaline batteries)
External: DC 12 V
Battery life:
Approx. 5 hours with Sony AA-size (LR6) alkaline batteries at 25 °C (77 °F)
Power consumption:
Batteries: approx. 230 mA at DC 6 V
External: approx. 135 mA at DC 12 V
Dimensions (W x H x D):
89.0 x 120.0 x 29.5 mm
(3 5/8 x 4 3/4 x 1 3/16 inches)
Mass:
Approx. 400 g (14.1 oz) including batteries

WRR-862B/67 UHF Synthesized Dual Diversity Tuner (67CE7)

Features

*Receives two independent RF signals on two separate channels *Operates over a 24 MHz frequency band within the range of 838 MHz to 862 MHz (TV channels 67 to 69) *A space diversity system is employed on both channels to eliminate signal dropout and provide stable reception *Compact and lightweight body; 400 g (14.1 oz) including batteries *Easily mounts on Sony professional camcorders with the supplied attachment kit and case (*) *Two SMC9-4S (Sony 4-pin) audio output connectors on the top panel *Rugged, diecast magnesium frame *LED indicators for each channel to indicate RF input level (green/red indication), diversity reception status and transmitter battery alarm *LCD screen for each channel to indicate operating channel/frequency, AF output level, RF input level, receiver battery status and accumulated battery operating time *Five hours of continuous operation with four AA-size (LR6) alkaline batteries *Capable of operating on external power from Sony camcorders via the supplied DC cable *Selectable RF squelch threshold: 5 dB μ , 10 dB μ , 15 dB μ and OFF *A stereo mini jack for monitoring the output sound (switchable: Tuner 1/2/mixed) with headphones (A monitor volume control is also included.)

(*) A-8278-057-A mounting bracket (service part) may also be required.



Supplied Accessories

Attachment case (1)
Mounting plate (1)
DC cable (1)
Output cable (2)
Antenna (2)

Specifications

Receiving channel number:
2 channels
Receiving frequencies:
2 frequencies within 838 MHz to 862 MHz
Local oscillators:
1st: PLL synthesizer, 2nd: Crystal oscillator
De-emphasis:
50 μ s
System dynamic range:
96 dB or more (101 dB typical)
Reference deviation:
 ± 5 kHz deviation at 1 kHz modulation
(Max. deviation: ± 40 kHz deviation at 1 kHz modulation)
Selectivity:
60 dB or more at ± 250 kHz
Spurious rejection:
70 dB or more
Frequency response:
40 Hz to 18 kHz (typical)
Signal-to-noise ratio:
60 dB or more (65 dB typical) at 60 dB μ
RF input at reference deviation,
A-weighted
RF squelch level:
5 dB μ , 10 dB μ , 15 dB μ or OFF
Audio output level:
-58 dBm at reference deviation

Audio output connector:

SMC9-4S (Sony 4-pin, x 2), balanced

Antenna connector:

BNC-R (x 2), 50 Ω (nominal) impedance

Monitor output:

3.5 mm dia. mini jack (x 1, 5 mW), Tuner 1/2/mixed selectable

Operating voltage:

Batteries: DC 6 V (four AA-size (LR6) alkaline batteries)
External: DC 12 V

Battery life:

Approx. 5 hours with Sony AA-size (LR6) alkaline batteries at 25 °C (77 °F)

Power consumption:

Batteries: approx. 230 mA at DC 6 V
External: approx. 135 mA at DC 12 V

Dimensions (W x H x D):

89.0 x 120.0 x 29.5 mm
(3 5/8 x 4 3/4 x 1 3/16 inches)

Mass:

Approx. 400 g (14.1 oz) including batteries

WRT-807B/62 UHF Synthesized Wireless Microphone (62CE7)

Features

*Dynamic microphone capsule that is employed in the Sony F-780 professional vocal microphone *High sound quality for vocals — powerful, crisp and clean sound
*Operates over a 24 MHz frequency band within the range of 798 to 822 MHz (TV channels 62 to 64)*LCD for display of operating channel, AF/RF conditions, attenuator, battery status and accumulated operating hours *Up to 5 hours of continuous operation with one AA-size (LR6) battery *10 mW RF power output
*Lockable external power switch *Transmits a low battery alarm to most Sony receivers



Supplied Accessories

Microphone holder (PF1/2 thread) (1)
Metal screw adaptor (PF1/2 to W3/8) (1)

Specifications

Oscillator:

Crystal controlled PLL synthesizer

Type of emission:

110KF3E

Carrier frequencies:

798 to 822 MHz

Microphone capsule:

Dynamic

Directivity:

Uni-directional

RF power output:

10 mW (50 Ω load)

Antenna:

1/4 wave length wire antenna

Reference deviation:

± 5 kHz (94 dB SPL*, at 1 kHz)

Frequency response:

50 Hz to 15 kHz (typical)

Signal-to-noise ratio (A-weighted):

60 dB or more (A-weighted, at reference deviation)

Attenuator adjustment range (PAD):

0 dB to 21 dB, variable in 3 dB steps

Max. input sound pressure level:

151 dB SPL* (with 21 dB attenuator)

Operating voltage:

DC 1.5 V (one AA-size (LR6) alkaline battery)

Battery life:

Approx. 5 hours with Sony AA-size (LR6) alkaline battery at 25 °C (77 °F)

Dimensions (diameter x length):

51 x 238 mm (2 1/8 x 9 3/8 inches)

Mass:

440 g (15.5 oz) including battery

*0 dB SPL = 2E-5 Pa.

WRT-807B/67 UHF Synthesized Wireless Microphone (67CE7)

Features

*Dynamic microphone capsule that is employed in the Sony F-780 professional vocal microphone *High sound quality for vocals — powerful, crisp and clean sound
*Operates over a 24 MHz frequency band within the range of 838 MHz to 862 MHz (TV channels 66 to 67)
*LCD for display of operating channel, AF/RF conditions, attenuator, battery status and accumulated operating hours *Up to 5 hours of continuous operation with one AA-size (LR6) battery *10 mW RF power output
*Lockable external power switch *Transmits a low battery alarm to most Sony receivers



Supplied Accessories

Microphone holder (PF1/2 thread) (1)
Metal screw adaptor (PF1/2 to W3/8) (1)

Specifications

Oscillator:

Crystal controlled PLL synthesizer

Type of emission:

110KF3E

Carrier frequencies:

838 MHz to 862 MHz

Microphone capsule:

Dynamic

Directivity:

Uni-directional

RF power output:

10 mW (50 Ω load)

Antenna:

1/4 wave length wire antenna

Reference deviation:

± 5 kHz (94 dB SPL*, at 1 kHz)

Frequency response:

50 Hz to 15 kHz (typical)

Signal-to-noise ratio (A-weighted):

60 dB or more (A-weighted, at reference deviation)

Attenuator adjustment range (PAD):

0 dB to 21 dB, variable in 3 dB steps

Max. input sound pressure level:

151 dB SPL* (with 21 dB attenuator)

Operating voltage:

DC 1.5 V (one AA-size (LR6) alkaline battery)

Battery life:

Approx. 5 hours with Sony AA-size (LR6) alkaline battery at 25 °C (77 °F)

Dimensions (diameter x length):

51 x 238 mm (2 1/8 x 9 3/8 inches)

Mass:

440 g (15.5 oz) including battery

*0 dB SPL = 2E-5 Pa.

WRT-822B/62 UHF Synthesized Wireless Transmitter (62CE7)

Features

*Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries *Compact and lightweight body; 63 (W) x 103 (H) x 17 (D) mm (2 1/2 x 4 1/8 x 11/18 inches) *Operates over a 24 MHz frequency band within the range of 798 MHz to 822 MHz (TV channels 62 to 64) *Easy-to-read LCD for comprehensive system information such as channel number, channel frequency in MHz, AF, RF, attenuator, battery status, accumulated working time *20 mW RF power output *Accepts professional lavalier microphones fitted with SMC9-4P type connector

Supplied Accessories

Soft case (1)

Optional Accessories

ECM-350BC Headset Microphone
ECM-310BC Headset Microphone
ECM-77BC Lavalier Microphone
ECM-77SC Lavalier Microphone
ECM-77FC Lavalier Microphone
ECM-66BC Lavalier Microphone
ECM-55BC Lavalier Microphone
ECM-44BC Lavalier Microphone

Specifications

Oscillator:

Crystal controlled PLL synthesizer

Type of emission:

110KF3E

Carrier frequency:

798 MHz to 822 MHz

RF power output:

20 mW (50 Ω load)

Antenna:

1/4 wave length whip antenna

Reference deviation:

± 5 kHz (-60 dBV, 1 kHz)

Frequency response:

70 Hz to 15 kHz (typical)

Signal-to-noise ratio:

60 dB (A-weighted, at reference deviation)

Attenuator adjustment range (pad):

0 to 21 dB, variable in 3 dB steps

Max. input level:

-3 dBV (with 21 dB attenuator)

Operating voltage:

DC 3 V (two AA-size (LR6) alkaline batteries)

Battery life:

Approx. 6 hours with Sony AA-size (LR6) alkaline batteries at 25 °C (77 °F)

Dimensions:

63 (W) x 103 (H) x 17 (D) mm
(2 1/2 x 4 1/8 x 11/16 inches)

Mass:

145 g (5.1 oz) including batteries

* 0 dBV = 1 V_{r.m.s.}



WRT-822B/67 UHF Synthesized Wireless Transmitter (67CE7)

Features

*Approx. six hours of continuous operation with two AA-size (LR6) alkaline batteries *Compact and lightweight body; 63 (W) x 103 (H) x 17 (D) mm (2 1/2 x 4 1/8 x 11/18 inches) *Operates over a 24 MHz frequency band within the range of 838 MHz to 862 MHz (TV channels 67 to 69) *Easy-to-read LCD for comprehensive system information such as channel number, channel frequency in MHz, AF, RF, attenuator, battery status, accumulated working time *20 mW RF power output *Accepts professional lavalier microphones fitted with SMC9-4P type connector

Supplied Accessories

Soft case (1)

Optional Accessories

ECM-350BC Headset Microphone

ECM-310BC Headset Microphone

ECM-77BC Lavalier Microphone

ECM-77SC Lavalier Microphone

ECM-77FC Lavalier Microphone

ECM-66BC Lavalier Microphone

ECM-55BC Lavalier Microphone

ECM-44BC Lavalier Microphone

Specifications

Oscillator:

Crystal controlled PLL synthesizer

Type of emission:

110KF3E

Carrier frequency:

838 MHz to 862 MHz

RF power output:

20 mW (50 Ω load)

Antenna:

1/4 wave length whip antenna

Reference deviation:

± 5 kHz (-60 dBV, 1 kHz)

Frequency response:

70 Hz to 15 kHz (typical)

Signal-to-noise ratio:

60 dB (A-weighted, at reference deviation)

Attenuator adjustment range (pad):

0 to 21 dB, variable in 3 dB steps

Max. input level:

-3 dBV (with 21 dB attenuator)

Operating voltage:

DC 3 V (two AA-size (LR6) alkaline batteries)

Battery life:

Approx. 6 hours with Sony AA-size (LR6) alkaline batteries at 25 °C (77 °F)

Dimensions:

63 (W) x 103 (H) x 17 (D) mm
(2 1/2 x 4 1/8 x 11/16 inches)

Mass:

145 g (5.1 oz) including batteries

* 0 dBV = 1 V_{r.m.s.}



WRT-847B/62 UHF Synthesized Transmitter Unit (62CE7)

Features

*A choice of five optional microphone capsules, each with specific characteristics to suit a range of different applications. (One capsule is required for the WRT-847B for function.) *Switchable audio compander time constant to suit different capsules *Selectable RF output level: 10 mW or 50 mW *Audio gain and attenuation settings within the range of +9 dB to -12 dB in 3 dB steps *Operates over a 24 MHz frequency band within the range of 798 MHz to 822 MHz (TV channels 62 and 64) *Lockable external power switch (ON/OFF) *Easy-to-read LCD with back light indicates operating conditions such as channel number/frequency, audio input level, compander time constant, battery status and accumulated battery operating time *Eight hours of continuous operation with two AA-size (LR6) alkaline batteries *Transmits a low battery warning to most Sony receivers



Supplied Accessories

Microphone holder (1)
Stand adaptor (PF1/2 to NS5/8 type) (1)
Soft case (1)
Channel color seal (1)

Optional Accessories

CU-F780 Capsule Unit
CU-G780 Capsule Unit
CU-E700 Capsule Unit
CU-E672 Capsule Unit
CU-F117 Capsule Unit

Specifications

Oscillator:
Crystal controlled PLL synthesizer
Type of emission:
110KF3E
Carrier frequencies:
798 MHz to 822 MHz
RF power output:
10 mW/50 mW selectable (50 Ω load)
Type of antenna:
1/4 wave length whip antenna
Pre-emphasis:
50 μ s
Reference deviation:
 ± 5 kHz (94 dB SPL*, 1 kHz)
Frequency response:
50 Hz to 18 kHz (typical)
Signal to noise ratio:
60 dB or more (A-weighted, at reference deviation)

Audio gain control:
-12 dB to 9 dB (in 3 dB steps)
Max. input sound pressure level:
142 dB SPL* (with
CU-F780/G780/E700/F117 at audio gain
-12 dB)
120 dB SPL* (with CU-E672)
Power requirements:
DC 3.0 V (two LR6 AA-size alkaline
batteries)
Battery life:
Approx. 8 hours at 25°C (77°F) with Sony
AA-size (LR6) alkaline batteries, at 10 mW
RF output
Dimensions (diameter x length):
37 x 150 mm (1 1/2 x 6 inches)
Mass:
Approx. 190 g (6.7 oz) including batteries

* 0 dB SPL = 2E-5 Pa.

WRT-847B/67 UHF Synthesized Transmitter Unit

Features

*A choice of five optional microphone capsules, each with specific characteristics to suit a range of different applications. (One capsule is required for the WRT-847B for function.) *Switchable audio compander time constant to suit different capsules *Selectable RF output level: 10 mW or 50 mW *Audio gain and attenuation settings within the range of +9 dB to -12 dB in 3 dB steps *Operates over a 24 MHz frequency band within the range of 838 MHz to 862 MHz (TV channels 67 and 69) *Lockable external power switch (ON/OFF) *Easy-to-read LCD with back light indicates operating conditions such as channel number/frequency, audio input level, compander time constant, battery status and accumulated battery operating time *Eight hours of continuous operation with two AA-size (LR6) alkaline batteries *Transmits a low battery warning to most Sony receivers



Supplied Accessories

Microphone holder (1)
Stand adaptor (PF1/2 to NS5/8 type) (1)
Soft case (1)
Channel color seal (1)

Optional Accessories

CU-F780 Capsule Unit
CU-G780 Capsule Unit
CU-E700 Capsule Unit
CU-E672 Capsule Unit
CU-F117 Capsule Unit

Specifications

Oscillator:

Crystal controlled PLL synthesizer

Type of emission:

110KF3E

Carrier frequencies:

838 MHz to 862 MHz

RF power output:

10 mW/50 mW selectable (50 Ω load)

Type of antenna:

1/4 wave length whip antenna

Pre-emphasis:

50 μ s

Reference deviation:

± 5 kHz (94 dB SPL*, 1 kHz)

Frequency response:

50 Hz to 18 kHz (typical)

Signal to noise ratio:

60 dB or more (A-weighted, at reference deviation)

Audio gain control:

-12 dB to 9 dB (in 3 dB steps)

Max. input sound pressure level:

142 dB SPL* (with
CU-F780/G780/E700/F117 at audio gain
-12 dB)
120 dB SPL* (with CU-E672)

Power requirements:

DC 3.0 V (two LR6 AA-size alkaline
batteries)

Battery life:

Approx. 8 hours at 25°C (77°F) with Sony
AA-size (LR6) alkaline batteries, at 10 mW
RF output

Dimensions (diameter x length):

37 x 150 mm (1 1/2 x 6 inches)

Mass:

Approx. 190 g (6.7 oz) including batteries

* 0 dB SPL = 2E-5 Pa.

WRT-8B/62 UHF Synthesized Transmitter (62CE7)

Features

*Extremely compact and lightweight: 140 g including batteries, 63 (W) x 83 (H) x 17 (D) mm *Operates over a 24 MHz frequency band within the range of 798 MHz to 822 MHz (TV channels 62 to 64) *Selectable RF output powers: 10 mW or 50 mW *Switchable input level: LINE level or MIC level *Variable audio attenuator *Approx. 13 hours of continuous operation with two AA-size (LR6) alkaline batteries at 10 mW output (Approx. six hours of operation at 50 mW output) *Removable antenna with SMA connector *LCD screen indicates extensive information such as operating channel/frequency, audio input level, RF output level, transmitter battery status and accumulated operating time *A red LED indicator flashes when the AF level exceeds a designated level *Transmits a low battery warning to Sony receivers *Rugged, die-cast magnesium frame *Accepts the output of lavalier microphones fitted with a Sony SMC9-4P connector

Supplied Accessories

Soft case (1)
Spare battery case (1)
Microphone cable (1)

Optional Accessories

ECM-77BC Lavalier Microphone
ECM-77FC Lavalier Microphone
ECM-66BC Lavalier Microphone
ECM-55BC Lavalier Microphone
ECM-44BC Lavalier Microphone
ECM-310BC Headset Microphone
ECM-350BC Headset Microphone

Specifications

Oscillator:

Crystal-controlled PLL synthesizer

Carrier frequencies:

798 MHz to 822 MHz

Oscillator:

Crystal controlled PLL synthesizer

RF power output:

50 mW/10 mW (e.r.p.) selectable

Antenna:

1/4 wavelength wire (SMA-J type connector)

Frequency response:

40 Hz to 20 kHz (typical)

Reference deviation:

±5 kHz (-60 dBV, 1 kHz input, MIC position)
±5 kHz (-20 dBu, 1 kHz input, LINE position)

Signal-to-noise ratio:

60 dB or more (A-weighted)

Attenuator adjustment range:

0 to 40 dB, continuous

Max. input level:

-2 dBV (1 kHz input, MIC position)
+38 dBu (1 kHz input, LINE position)

Audio input level:

MIC level/LINE level switchable

Audio input connector:

Sony SMC9-4S type

Power requirements:

DC 3.0 V (with two LR6 alkaline batteries)

Battery life:

Approx. 6 hours with Sony LR6 alkaline batteries at 25 °C (77 °F) at 50 mW output
Approx. 13 hours with Sony LR6 alkaline batteries at 25 °C (77 °F) at 10 mW output

Dimensions:

63 (W) x 83 (H) x 17 (D) mm
(2 1/2 x 3 3/8 x 11/16 inches)

Mass:

Approx. 140 g (4.9 oz) including batteries



WRT-8B/67 UHF Synthesized Transmitter (67CE7)

Features

*Extremely compact and lightweight: 140 g including batteries, 63 (W) x 83 (H) x 17 (D) mm *Operates over a 24 MHz frequency band within the range of 838 MHz to 862 MHz (TV channels 67 to 69) *Selectable RF output powers: 10 mW or 50 mW *Switchable input level: LINE level or MIC level *Variable audio attenuator *Approx. 13 hours of continuous operation with two AA-size (LR6) alkaline batteries at 10 mW output (Approx. six hours of operation at 50 mW output) *Removable antenna with SMA connector *LCD screen indicates extensive information such as operating channel/frequency, audio input level, RF output level, transmitter battery status and accumulated operating time *A red LED indicator flashes when the AF level exceeds a designated level *Transmits a low battery warning to Sony receivers *Rugged, die-cast magnesium frame *Accepts the output of lavalier microphones fitted with a Sony SMC9-4P connector

Supplied Accessories

Soft case (1)
Spare battery case (1)
Microphone cable (1)

Optional Accessories

ECM-77BC Lavalier Microphone
ECM-77FC Lavalier Microphone
ECM-66BC Lavalier Microphone
ECM-55BC Lavalier Microphone
ECM-44BC Lavalier Microphone
ECM-310BC Headset Microphone
ECM-350BC Headset Microphone

Specifications

Oscillator:

Crystal-controlled PLL synthesizer

Carrier frequencies:

838 MHz to 862 MHz

Oscillator:

Crystal controlled PLL synthesizer

RF power output:

50 mW/10 mW (e.r.p.) selectable

Antenna:

1/4 wavelength wire (SMA-J type connector)

Frequency response:

40 Hz to 20 kHz (typical)

Reference deviation:

±5 kHz (-60 dBV, 1 kHz input, MIC position)

±5 kHz (-20 dBu, 1 kHz input, LINE position)

Signal-to-noise ratio:

60 dB or more (A-weighted)

Attenuator adjustment range:

0 to 40 dB, continuous

Max. input level:

-2 dBV (1 kHz input, MIC position)

+38 dBu (1 kHz input, LINE position)

Audio input level:

MIC level/LINE level switchable

Audio input connector:

Sony SMC9-4S type

Power requirements:

DC 3.0 V (with two LR6 alkaline batteries)

Battery life:

Approx. 6 hours with Sony LR6 alkaline batteries at 25 °C (77 °F) at 50 mW output

Approx. 13 hours with Sony LR6 alkaline batteries at 25 °C (77 °F) at 10 mW output

Dimensions:

63 (W) x 83 (H) x 17 (D) mm
(2 1/2 x 3 3/8 x 11/16 inches)

Mass:

Approx. 140 g (4.9 oz) including batteries



WRU-806B/62 UHF Synthesized Tuner Unit (62CE7)

Features

*Dedicated plug-in diversity receiver for MB-806A tuner base unit
 *Operates within the range of 798 MHz to 822 MHz (TV channels 62 and 64)
 *Auto channel assignment for extra receiver modules with self-detection and skipping of unusable channels
 *Pre-programmed groups for inter-modulation free operation of multi-channel system
 *AF, RF and transmitter's low-battery alarm indication by both LED and LCD to double check operating condition
 *Use of SAW filters for exceptional rejection of unwanted signals while maintaining the best signal integrity of the desired signals
 *Space diversity reception for dependable RF reception



Applicable Models

MB-806A UHF Tuner Base Unit

Specifications

Receiving channel:

1 channel

Receiving frequency:

798 MHz to 822 MHz

Oscillator:

1st: PLL synthesizer, 2nd: Crystal oscillator

De-emphasis:

50 μ s

Reference Deviation:

± 5 kHz deviation at 1 kHz modulation
 (Max. deviation: ± 40 kHz deviation at 1 kHz modulation)

Selectivity:

60 dB or more at ± 250 kHz

Spurious rejection ratio:

70 dB or more

Frequency range:

70 Hz to 18 kHz (typical)

Signal-to-noise ratio:

60 dB or more at 60 dB μ RF input at reference deviation, A-weighted

RF muting level:

30 dB μ

Operating voltage:

DC 9 V

Current consumption:

225 mA or less

Dimensions (W x H x D):

57 x 26 x 122 mm
 (2 1/4 x 1 1/16 x 4 7/8 inches)

Mass:

160.0 g (5.7 oz)

WRU-806B/67 UHF Synthesized Tuner Unit (67CE7)

Features

*Dedicated plug-in diversity receiver for MB-806A tuner base unit
 *Operates within the range of 822 MHz to 862 MHz (TV channels 67 and 69)
 *Auto channel assignment for extra receiver modules with self-detection and skipping of unusable channels
 *Pre-programmed groups for inter-modulation free operation of multi-channel system
 *AF, RF and transmitter's low-battery alarm indication by both LED and LCD to double check operating condition
 *Use of SAW filters for exceptional rejection of unwanted signals while maintaining the best signal integrity of the desired signals
 *Space diversity reception for dependable RF reception



Applicable Models

MB-806A UHF Tuner Base Unit

Specifications

Receiving channel:

1 channel

Receiving frequency:

838 MHz to 862 MHz

Oscillator:

1st: PLL synthesizer, 2nd: Crystal oscillator

De-emphasis:

50 μ s

Reference Deviation:

± 5 kHz deviation at 1 kHz modulation
 (Max. deviation: ± 40 kHz deviation at 1 kHz modulation)

Selectivity:

60 dB or more at ± 250 kHz

Spurious rejection ratio:

70 dB or more

Frequency range:

70 Hz to 18 kHz (typical)

Signal-to-noise ratio:

60 dB or more at 60 dB μ RF input at reference deviation, A-weighted

RF muting level:

30 dB μ

Operating voltage:

DC 9 V

Current consumption:

225 mA or less

Dimensions (W x H x D):

57 x 26 x 122 mm
 (2 1/4 x 1 1/16 x 4 7/8 inches)

Mass:

160.0 g (5.7 oz)

WRU-8N/62 UHF Synthesized Tuner Unit (62CE7)

Features

- *Plug-in diversity receiver for MB-8N Tuner Base Unit
- *Jog dial control for channel number/group selection
- *Operates over a 24 MHz frequency band within the range of 798 MHz to 822 MHz (TV channels 62 to 64)
- *LCD screen displays operating channel/frequency and RF level
- *LED indicators display space diversity reception status, AF input status and a low battery warning of Sony transmitters
- *Auto channel assignment of additional receiver modules for instant programming of interference-free multi-channel operation. Automatically skips unusable channels and assigns open channels.
- *Space diversity reception for stable RF reception



Applicable Models

MB-8N Tuner Base Unit (U2)

Specifications

Receiving channel:

1 channel

Receiving frequencies:

798 MHz to 822 MHz

Local oscillators:

PLL synthesizer

Reference deviation:

±5 kHz deviation at 1 kHz modulation

(Maximum deviation: ±40 kHz at 1 kHz modulation)

Signal-to-noise ratio:

60 dB or more (65 dB typical) at 60 dBμ RF input at reference deviation, A-weighted

Selectivity:

60 dB or more at ±250

kHz detuned

RF squelch level:

10 dBμ, 20 dBμ, 30 dBμ or off

De-emphasis:

50 μs

Power consumption:

DC 5 V (supplied from MB-8N)

Dimensions (W x H x D):

56.0 x 30.7 x 149.0 mm

(2 1/4 x 1 1/4 x 5 7/8 inches)

Mass:

165 g (5.8 oz)

WRU-8N/67 UHF Synthesized Tuner Unit (67CE7)

Features

- *Plug-in diversity receiver for MB-8N Tuner Base Unit
- *Jog dial control for channel number/group selection
- *Operates over a 24 MHz frequency band within the range of 838 MHz to 862 MHz (TV channels 67 to 69)
- *LCD screen displays operating channel/frequency and RF level
- *LED indicators display space diversity reception status, AF input status and a low battery warning of Sony transmitters
- *Auto channel assignment of additional receiver modules for instant programming of interference-free multi-channel operation. Automatically skips unusable channels and assigns open channels.
- *Space diversity reception for stable RF reception



Applicable Models

MB-8N Tuner Base Unit (U2)

Specifications

Receiving channel:

1 channel

Receiving frequencies:

838 MHz to 862 MHz

Local oscillators:

PLL synthesizer

Reference deviation:

±5 kHz deviation at 1 kHz modulation

(Maximum deviation: ±40 kHz at 1 kHz modulation)

Signal-to-noise ratio:

60 dB or more (65 dB typical) at 60 dBμ RF input at reference deviation, A-weighted

Selectivity:

60 dB or more at ±250 kHz detuned

RF squelch level:

10 dBμ, 20 dBμ, 30 dBμ or off

De-emphasis:

50 μs

Power consumption:

DC 5 V (supplied from MB-8N)

Dimensions (W x H x D):

56.0 x 30.7 x 149.0 mm

(2 1/4 x 1 1/4 x 5 7/8 inches)

Mass:

165 g (5.8 oz)

SONY

Monitor Equipment

MDR-7502	.....	398
MDR-7505	.....	399
MDR-7506	.....	400
MDR-7509	.....	401

MDR-7502 Stereo Headphones

Features

*Designed to fit securely over the ear, these headphones ensure a high-degree of air-tightness and soundproofing
*The diaphragm, which is made of a high-molecule film, and the copper-clad aluminum voice coil reproduce high quality extended frequency sound
*Neodymium magnet is used to deliver deep bass and clear treble sound
*These headphones are equipped with a stereo unimatch plug which can be connected to a jack of either the mini or the phone type
*The headphone cord is a litz wire which reduces conductive loss at high frequencies

Supplied Accessories

Soft case (1)

Gold-plated unimatch plug adaptor (1)

Specifications

Type:

Supra-aural, closed

Driver units:

30 mm dia., dynamic type

Diaphragm:

PET

Magnet:

Neodymium

Impedance:

24 Ω at 1 kHz

Sensitivity:

100 dB/mW

Power handling capacity:

500 mW

Frequency response:

60 Hz to 18 kHz

Cord:

2 m cord with a gold-plated stereo mini plug cord

Mass (without cord):

150 g (5.2 oz)



MDR-7505 Stereo Headphones

Features

- *Professional monitoring headphones for DJ, remix, and studio
- *Swivel mechanism allows easy single sided monitoring in various wearing positions
- *Round design of ear pads allows the DJs to listen in various positions, with consistent audio quality
- *Acoustical characteristics is designed to position sound image very close to the ears, thus, enabling easy sound monitoring in noisy environment
- *40 mm driver unit for high quality sound
- *Neodymium magnet for powerful bass and clear treble sound
- *Reversible earcup design for easy single sided monitoring
- *Coiled, LC-OFC cord for high quality transmission
- *Screw type gold plated stereo unimatch plug for secure connection
- *Convenient folding design

Supplied Accessories

Soft case (1)

Gold-plated unimatch plug adaptor (1)

Specifications

Type:

Supra-aural, closed

Driver units:

40 mm dia., dynamic type

Diaphragm:

PET

Magnet:

Neodymium

Impedance:

40 Ω

Sensitivity:

106 dB/mW

Power handling capacity:

1,000 mW

Frequency response:

10 Hz to 25 kHz

Cord:

Coiled, single sided, 1 to 3 m LC-OFC litz cord with a gold plated stereo mini plug

Headband:

Wide single headband (folding mechanism)

Mass (without cord):

220 g (7.7 oz)



MDR-7506 Stereo Headphones

Features

*Professional monitoring headphones *Comfortable, auranomic design (circum aural headphones, earcup covering the entire ear) *40 mm driver unit for high quality sound *Neodymium magnet is used to deliver deep bass and clear treble sound *Utilizing diaphragms constructed of 16 μ m high-molecule film and copper-clad aluminum voice coil, these headphones deliver high quality sound along a wide frequency range *The headphone cord is an oxygen-free copper litz wire which provides maximum conductivity *The coiled headphone cord extends user's action radius to 3 meters *Useful clicking scales on the slide bar *Convenient folding design *Self-closing mechanism prevents sound leakage when headphones are taken off

Supplied Accessories

Soft case (1)

Gold-plated unimatch plug adaptor (1)

Specifications

Type:

Circum-aural, closed

Driver units:

40 mm dia., dynamic type

Impedance:

63 Ω at 1 kHz

Sensitivity:

106 dB/mW

Power handling capacity:

1000 mW

Frequency response:

10 Hz to 20 kHz

Cord:

Coiled, single sided, 1 to 3 m OFC litz cord with a gold-plated stereo mini plug

Mass (without cord):

230 g (8.1 oz)



MDR-7509 Stereo Headphones

Features

- *Professional monitoring headphones
- *Resists high power input up to 3000 mW
- *Comfortable, auranomic design (circum aural headphones, earcup covering the entire ear)
- *50 mm driver unit for high quality sound
- *Neodymium magnet for powerful bass and clear treble sound
- *Amorphous diamond evaporated diaphragm for natural sound reproduction
- *Reversible earcup design for easy single sided monitoring
- *Coiled, LC-OFC class 1 litz cord for minimum signal transmission loss
- *Screw-type gold plated stereo unimatch plug for secure connection
- *Convenient folding design
- *Self-closing mechanism prevents sound leakage when headphones are taken off

Supplied Accessories

Soft case (1)

Gold-plated unimatch plug adaptor (1)

Specifications

Type:

Circum-aural, closed

Driver units:

50 mm dia., dynamic type

Diaphragm:

Amorphous diamond evaporated

Magnet:

Neodymium

Impedance:

24 Ω

Sensitivity:

107 dB/mW

Power handling capacity:

3,000 mW

Frequency response:

5 Hz to 30 kHz

Cord:

Coiled, single sided, 1 to 3 m LC-OFC class1 litz cord with a gold-plated stereo mini plug

Headband:

Wide single headband (folding mechanism)

Mass (without cord):

300 g (10.5 oz)



SONY

VPL-CX70	404
VPL-CX76	405
VPL-CX86	406
VPL-CX80	407
VPL-PX41	408
VPL-FX52/L	409
VPL-VW100	410
QUALIA 004	411

VPL-CX70 Multi Purpose XGA Projector



High brightness and a range of additional features ensure that the VPL-CX70 will meet the requirements of even the most demanding multi purpose projector users.

Features

*Side Shot™ for flexibility *Advanced Intelligent Auto Set-up and Auto Focus *Brightness in ANSI Lumens: 2000 *Contrast Ratio: 350:1 *Projection System: 3 LCD panels 1 lens system *Panel Size: 0.79 inch *Native resolution: XGA 1024x768x3 *Max. Input Signal Resolution: SXGA+ 1400x1050 *Low Fan Noise: 30dB *Screen Size (diagonally): 40 - 300 inch / 102 - 762 cm



Supplied Accessories

Remote Control (RM-PJM17)
Battery Remote (2 x R6AA)
Connecting Cable (HD 15-pin & USB)
Replacement Air Filter
Carrying Case (Soft)

Optional Accessories

Replacement Lamp
Ceiling Mount Bracket

Inputs

D sub 15-pin (1)
Composite Video (1)
S-Video (1)
Audio in (1)

Specifications

Brightness in ANSI Lumens
2000
Contrast Ratio
350:1
Projection System
3 LCD panels
1 lens system
LCD Panel Size
0.79 inch
Native Resolution
XGA 1024x768x3
Max. Input Signal Resolution
SXGA+ 1400x1050
Lens
Standard zoom
1.2 times (Powered)
Optional
No
Fan Noise
30dB
Keystone Correction
Vertical
+/- 20°
Horizontal
Side Shot

Lamp
Type
165W UHP
Life in hours
3000
Replacement
LMP-C161
Screen Size (diagonally)
40 - 300 inch
102 - 762 cm
Throwing Distance
80"/2m screen
2.4 - 2.7m
100"/2.5m screen
3.0 - 3.4m
Ceiling Mount Bracket (optional accy)
PSS-AT4
Speaker
1W Mono
HD ready
No
Filter Cleaning Time (Hours)
500
Off & Go
Yes
Power Consumption
Max: 240W
Standby: 4W
Colour
Pearl White
Dimensions (WxHxD) in mm
298x69x244
Weight
2.9kg

VPL-CX76 Wireless Mobile XGA Projector



Wireless presentations are made truly simple with the VPL-CX76, using Sony Air Shot™ (Version 2) technology.

Features

*Air Shot™ (Version 2) technology enables connection using the 802.11b/g standard *All wireless Air Shot™ accessories are supplied *Brightness in ANSI Lumens: 2500 *Contrast Ratio: 350:1 *Projection System: 3 LCD panels 1 lens system *Panel Size: 0.79 inch *Native resolution: XGA 1024x768x3 *Max. Input Signal Resolution: SXGA+ 1400x1050 *Low Fan Noise: 30dB *Screen Size (diagonally): 40 - 300 inch / 102 - 762 cm *Memory Stick Standard, Pro and Duo



Supplied Accessories

Remote Control (RM-PJM17 & PJP1)
Battery Remote (2xR6 & 2xR03)
Connecting Cable (HD 15-pin & USB)
Replacement Air Filter
Carrying Case (Soft)
802.11b/g Air Shot 2

Optional Accessories

Replacement Lamp
Ceiling Mount Bracket
USB Wireless Module with Memory for PC

Inputs

D sub 15-pin (Input A) (1)
Composite Video (1)
S-Video, Component Video (via Input A) (1)
USB (1)
Wireless LAN Card Slot (1)
Audio in (1)
Memory Stick Standard, Pro & Duo (1)

Specifications

Brightness in ANSI Lumens
2500
Contrast Ratio
350:1
Projection System
3 LCD panels
1 lens system
LCD Panel Size
0.79 inch
Native Resolution
XGA 1024x768x3
Max. Input Signal Resolution
SXGA+ 1400x1050
Lens
Standard zoom
1.2 times (Powered)
Optional
No
Fan Noise
30dB

Keystone Correction
Vertical
+/- 30° (H=0)
Horizontal
Side Shot
Lamp
Type
165W UHP
Life in hours
3000
Replacement
LMP-C161
Screen Size (diagonally)
40 - 300 inch
102 - 762 cm
Throwing Distance
80"/2m screen
2.4 - 2.7m
100"/2.5m screen
3.0 - 3.4m
Ceiling Mount Bracket (optional accy)
PSS-AT4
Speaker
1W Mono
HD ready
No
Filter Cleaning Time (Hours)
500
Off & Go
Yes
Power Consumption
Max: 240W
Standby: 9W
Colour
Pearl White
Dimensions (WxHxD) in mm
298x69x244
Weight
2.9kg

VPL-CX86 Wireless Bright XGA Installation Projector



Wireless, stylish and fully packed with a great range of features suitable for standard installation, integration in AV systems, stand-alone display or connection to a LAN.

Features

*Air Shot™ (Version 2) technology enables a faster and more secure connection using the 802.11b/g standard
*All wireless Air Shot™ accessories are supplied
*Connectors include an RS-232C port for management and control of the projector
*Two 15-pin D Sub inputs allow for flexible connection
*Brightness in ANSI Lumens: 3000
*Contrast Ratio: 350:1
*Projection System: 3 LCD panels 1 lens system
*Panel Size: 0.79 inch
*Native resolution: XGA 1024x768x3
*Max. Input Signal Resolution: SXGA+ 1400x1050
*Low Fan Noise: 28dB
*Screen Size (diagonally): 40 - 300 inch / 102 - 762 cm
*Memory Stick Standard, Pro and Duo



Supplied Accessories

Remote Control (RM-PJM17 & PJP1)
Battery Remote (2xR6 & 2xRC3)
Connecting Cable (HD 15-pin & USB)
Replacement Air Filter
Carrying Case (Soft)
802.11b/g Air Shot 2

Optional Accessories

Replacement Lamp
Ceiling Mount Bracket
USB Wireless Module with Memory for PC

Inputs

D sub 15-pin (Input A/B) (2)
Composite Video (1)
S-Video (1)
Component Video (via Input A) (1)
USB (1)
RS-232C (1)
Wireless LAN Card slot (1)
Audio In (2)
Memory Stick Standard, Pro & Duo

Specifications

Brightness in ANSI Lumens
3000
Contrast Ratio
350:1
Projection System
3 LCD panels
1 lens system
LCD Panel Size
0.79 inch
Native Resolution
XGA 1024x768x3
Max. Input Signal Resolution
SXGA+ 1400x1050
Lens
Standard zoom
1.2 times (Powered)
Optional
No
Fan Noise
28dB

Keystone Correction
Vertical
+/- 30° (H=0)
Horizontal
Side Shot
Lamp
Type
190W UHP
Life in hours
3000
Replacement
LMP-C190
Screen Size (diagonally)
40 - 300 inch
102 - 762 cm
Throwing Distance
80"/2m screen
2.4 - 2.7m
100"/2.5m screen
3.0 - 3.4m
Ceiling Mount Bracket (optional accy)
PSS-AT3
Speaker
1W Mono
HD ready
No
Filter Cleaning Time (Hours)
1000
Off & Go
Yes
Direct On/Off
Yes
Power Consumption
Max: 280W
Standby: 7W
Colour
Pearl White
Dimensions (WxHxD) in mm
328x93x284
Weight
3.8kg

VPL-CX80 Bright XGA Installation Projector



This smart, stylish projector offers a range of features that make it suitable for standard installation, integration in AV systems, or for portable use.

Features

*Connections include a RS-232C port and USB for management and control of the projector *Two RGB inputs allow for flexible connection *Brightness in ANSI Lumens: 3000 *Contrast Ratio: 350:1 *Projection System: 3 LCD panels 1 lens system *Panel Size: 0.79 inch *Native resolution: XGA 1024x768x3 *Max. Input Signal Resolution: SXGA+ 1400x1050 *Low Fan Noise: 28dB *Screen Size (diagonally): 40 - 300 inch / 102 - 762 cm



Supplied Accessories

Remote Control (RM-PJM17)
Battery Remote (2xR6 AA)
Connecting Cable (HD 15-pin & USB),
Replacement Air Filter
Carrying Case (Soft)

Optional Accessories

Replacement Lamp
Ceiling Mount Bracket

Inputs

D sub 15-pin (2)
Composite Video (1)
S-Video (1)
USB (1)
RS-232C
Audio In (2)

Specifications

Brightness in ANSI Lumens
3000
Contrast Ratio
350:1
Projection System
3 LCD panels
1 lens system
LCD Panel Size
0.79 inch
Native Resolution
XGA 1024x768x3
Max. Input Signal Resolution
SXGA+ 1400+ 1050
Lens
Standard zoom
1.2 times (Powered)
Optional
No
Fan Noise
28dB
Keystone Correction
Vertical
+/- 30° (H=0)
Horizontal
Side Shot

Lamp
Type
190W UHP
Life in hours
3000
Replacement
LMP-C190
Screen Size (diagonally)
40 - 300 inch
102 - 762 cm
Throwing Distance
80"/2m screen
2.4 - 2.7m
100"/2.5m screen
3.0 - 3.4m
Ceiling Mount Bracket (optional accy)
PSS-AT3
Speaker
1W Mono
HD ready
Accept HD Signal
Scan to XGA
Filter Cleaning Time (Hours)
1000
Off & Go
Yes
Direct On/Off
Yes
Power Consumption
Max: 280W
Standby: 5W
Colour
Pearl White
Dimensions (WxHxD) in mm
328x93x284
Weight
3.8kg

VPL-PX41 Flexible XGA Network Projector



This projector is packed with features designed to meet the requirements of diverse users in corporate, educational and rental environments. It is suited for use as a stand-alone display, integration in larger systems and connection to a Local Area Network (LAN).

Features

*Network functionality allows the projector to be controlled and monitored from a remote location *SNMP compatible; the industry standard protocol for management and maintenance of equipment on LANs *Three optional lenses and 90° tilt function, allowing huge adaptability
*Brightness in ANSI Lumens: 3500 *Contrast Ratio: 700:1
*Projection System: 3 LCD panels 1 lens system *Panel Size: 0.99 inch *Native resolution: XGA 1024x768x3
*Max. Input Signal Resolution: UXGA 1600x1200
*Fan Noise: 36dB *Screen Size (diagonally):
40 - 300 inch / 102 - 762 cm



Supplied Accessories

Remote Control (RM-PJM17)
Battery Remote (2xR6 AA)
Connecting Cable (HD 15-pin & USB)
Replacement Air Filter
Carrying Case (Handle)

Optional Accessories

Replacement Lamp
Ceiling Mount Bracket
Short-focus Fixed Lens
Short-focus Zoom Lens

Inputs

D sub 15-pin (2)
Composite Video (1)
S-Video (1)
Component Video (via 5BNC)
DVI-D (1)
USB (1)
RS-232C (1)
CTRL S (1)
5BN (1)
Ether (RJ-45)
Audio in (4)

Specifications

Brightness in ANSI Lumens
3500
Contrast Ratio
700:1
Projection System
3 LCD panels
1 lens system
LCD Panel Size
0.99 inch
Native Resolution
XGA 1024x768x3
Max. Input Signal Resolution
UXGA 1600x1200
Lens
Standard zoom
1.3 times (man)
Optional
VPLL - FM22 / ZM32 / ZM102

Fan Noise
36dB
Keystone Correction
Vertical
+/- 20°
Horizontal
No
Lamp
Type
265W UHP
Life in hours
3000
Replacement
LMP-P260
Screen Size (diagonally)
40 - 300 inch
102 - 762 cm
Throwing Distance
80"/2m screen
3.0 - 3.8m
100"/2.5m screen
3.8 - 4.8m
Ceiling Mount Bracket (optional accy)
PSS-610NL
Speaker
2x2W Stereo
HD ready
Accept HD Signal
Scan to XGA
Filter Cleaning Time (Hours)
1500
Off & Go
Yes
Direct On/Off
Yes
Power Consumption
Max: 365W
Standby: 6W
Colour
White
Dimensions (WxHxD) in mm
420x125x316
Weight
7.8kg

VPL-FX52/L Bright XGA Data Projector



The VPL-FX52 delivers a high brightness of 6000 ANSI lumens in a stylish and sophisticated design. Its outstanding functionality includes the ability to project high quality images, networking capability and installation flexibility, making it ideal for almost any large conference room or auditorium. The VPL-FX52L has three optional lenses for long, short and rear projection applications.

Features

*Dynamic Detail Enhancer (DDE) for high quality video images *Lens Shift *90° tilt function *Brightness in ANSI Lumens: 6000 *Contrast Ratio: 1000:1 *Projection System: 3 LCD panels 1 lens system *Panel Size: 1.3 inch *Native resolution: XGA 1024x768x3 *Max. Input Signal Resolution: UXGA 1600x1200 *Fan Noise: 35dB *Screen Size (diagonally): 40 - 300 inch / 102 - 762 cm



Supplied Accessories

Remote Control (RM-PJM17)
Battery Remote (2xR6 AA)
Replacement Air Filter

Optional Accessories (VPL-FX52L)

3 lenses for long, short and rear projection applications

Inputs

D sub 15-pin (Input A)
Composite Video (1)
S-Video (1)
Component Video (via 5BNC)
DVI-D (Input B)
RS-232C (1)
CTRL S (1)
5BNC (Input C)
Ether (RJ-45)
Trigger Out (1) 12 V
(Output) Monitor Out

Specifications

Brightness in ANSI Lumens
6000
Contrast Ratio
1,000:1
Projection System
3 LCD panels
1 lens system
LCD Panel Size
1.3 inch
Native Resolution
XGA 1024x768x3
Max. Input Signal Resolution
UXGA 1600x1200
Lens
Standard zoom (VPL-FX52)
1.3 times (Powered)
Optional (VPL-FX52/L)
VPLL-FM21/ ZM31/ZM101
Fan Noise
35dB
Keystone Correction
Vertical
+/- 20°
Horizontal
No

Lamp
Type
300W UHP
Life in hours
2500
Replacement
LMP-F300
Screen Size (diagonally)
40 - 300 inch
102 - 762 cm
Throwing Distance
80"/2m screen
3.06 - 3.74m
100"/2.5m screen
3.85 - 4.7m
Ceiling Mount Bracket (optional accy)
PSS-620
Speaker
No
HD ready
Accept HD Signal
Scan to XGA
Filter Cleaning Time (Hours)
1500
Off & Go
Yes
Direct On/Off
Yes
Power Consumption
Max: 400W
Standby: 7W
Colour
White & Silver
Dimensions (WxHxD) in mm
420x169x502 (VPL-FX52)
420x169x464 (VPL-FX52L)
Weight
10.5kg (VPL-FX52)
9.1kg (VPL-FX52L)

VPL-VW100 Full HD SXRD™ Home Theatre Projector



The VPL-VW100 combines the innovations from two award winning products; VPL-VW12HT and QUALIA 004 to deliver the best of both. Outstanding picture quality, with a contrast ratio of 15,000:1.

Features

*3 Sony SXRD™ Panels; 6.22 million pixels with narrow inter-pixel spacing of 0.35µm to deliver film quality smoothness *Pure Xenon lamp (400W) for more natural colour reproduction *ARC-F (All Range Crisp Focus) Lens designed specifically to optimise the full HD SXRD™ panel. Motorised lens zoom range of 1.8 times
*Contrast Ratio: 15,000:1 (Auto) 6,000:1 (On) 3,000:1 (Off) *Brightness in ANSI Lumens: 800
*Projection System: 3 SXRD™ panels 1 lens system
*Panel Size: 0.61 inch *Native resolution: Full HD 1920x1080x3 *Low Fan Noise: 22dB *Screen Size (diagonally): 40 - 300 inch / 102 - 762 cm



Supplied Accessories

Remote Control (RM-PJW100)
Battery Remote (2xR6 AA)
Replacement Air Filter (Air Filter Cover)
Image Director 2 Software CD-ROM

Optional Accessories

Replacement Lamp (LMP-H400)
Matching Ceiling Mount Bracket (PSS-H10)

Inputs

D sub 15-pin (Input A)
Composite Video (1)
S-Video (1)
Component Video (1)
HDMI (1)
DVI-D (1)
RS-232C (1)
Ether (RJ-45)
Trigger Output (1) 12 V

Specifications

Technology
SXRD
Brightness in ANSI Lumens
800 / 400
Contrast Ratio
3,000 - 15,000:1
Projection System
3 SXRD panels
1 lens system
LCD Panel Size
0.61 inch
Native Resolution
Full HD 1920x1080x3
Max. Input Signal Resolution
Full HD
Lens
Standard zoom
1.8 times (Powered)
Optional
No

Fan Noise
22dB
Keystone Correction
Vertical
Lens Shift & VK
Horizontal
Lens Shift
(man fine adjust)
Lamp
Type
400W Pure Xenon
Life in hours
2500
Replacement
LMP-H400
Screen Size (diagonally)
40 - 300 inch
102 - 762 cm
Throwing Distance
80"/2m screen
2.5 - 4.3m
100"/2.5m screen
3.1 - 5.3m
Ceiling Mount Bracket (optional accy)
PSS-H10
Speaker
No
HD ready
Yes
Filter Cleaning Time (Hours)
2500
Power Consumption
Max: 610W
Standby: 10W (eco 0.5W)
Colour
Glossy White

Dimensions (WxHxD) in mm
496x175x574
Weight
19kg

QUALIA 004 EISA Award Winning HD SXRD™ Home Theatre Projector

From conception through design and manufacture, QUALIA 004 is born to serve a single purpose: to create extraordinary sensory experiences capable of evoking powerful emotional response. This world beyond compromise comes brilliantly to life through this breathtaking innovation.



Features

*3 Sony SXRD™ Panels; 6.22 million pixels with narrow inter-pixel spacing of 0.35µm to deliver film quality smoothness *Pure Xenon lamp (700W) for more natural colour reproduction *Choice of three optional high quality Carl Zeiss® Vario-Sonnar™ lenses (Mid, Wide, Tele)
 *Contrast Ratio: 2,000:1 *Brightness in ANSI Lumens: 1600 *Projection System: 3 SXRD™ panels 1 lens system *Panel Size: 0.78 inch *Native resolution: Full HD 1920x1080x3 *Low Fan Noise: 24dB
 *Screen Size (diagonally): 40 - 300 inch / 102 - 762 cm



Supplied Accessories

2 Remote Controls (RM-PJR1F+R1S)
 Battery Remote (6xR03 AAA)
 Replacement Air Filter (1xPK-R1FL)
 Image Director 2 Software CD-ROM
 Ceiling Mount Bracket (PSS-100)

Optional Accessories

Required Option: 1 Carl Zeiss® Vario-Sonnar™ lens is required, not supplied. Choose from a selection of three lenses (mid, wide, tele)
 Replacement lamp (LMP-H700)

Inputs

Composite Video (1)
 S-Video (1)
 Component Video (Input A)
 HDMI (1)
 DVI-D (1)
 RS-232C (1)
 CTRL S (1)
 5BNC (Input B)
 Ether (RJ-45)
 Trigger Out (1) 12 V

Specifications

Technology
 SXRD
 Brightness in ANSI Lumens
 1600 / 600
 Contrast Ratio
 1,400 - 2,000:1
 Projection System
 3 SXRD panels
 1 lens system
 LCD Panel Size
 0.78 inch
 Native Resolution
 Full HD 1920x1080x3
 Max. Input Signal Resolution
 Full HD

Lens

Standard zoom
 No lens supplied
 Optional
 VPLL-ZP310
 Wide Zoom x1.34
 f = 25-33mm
 VPLL-ZP400
 Mid Zoom x1.43
 f = 32-45mm
 VPLL-ZP550
 Tele Zoom x1.4
 f = 44-61mm

Fan Noise

24dB

Keystone Correction

Vertical
 Yes
 Horizontal
 Man fine adjust

Lamp

Type
 700W Pure Xenon
 Life in hours
 2200
 Replacement
 LMP-H700

Screen Size (diagonally)

40 - 300 inch
 102 - 762 cm

Throwing Distance

80"/2m screen
 2.5 - 6.2m
 100"/2.5m screen
 3.2 - 7.8m

Ceiling Mount Bracket

PSS-100 (supplied)

Speaker

No
 HD ready
 Yes

Filter Cleaning Time (Hours)

2200

Power Consumption

Max: 980W
 Standby: 7.8W

Colour

Silver & Dark Blue

Dimensions (WxHxD) in mm

598x206x753

Weight

40kg



SONY

Large Venue Projectors

SRX-R105CE	.....	414
SRX-R110CE	.....	414

SRX-R110CE SXRD 4K Projectors SRX-R105CE

Sony's new, large-venue projectors, tailored with stunning features and picture performance to address the quality-critical demands of Events & staging, post production and Digital Cinema applications.

Features

*4K resolution 4096(V) x 2160(H) pixel image *Accepts a wide selection of input formats using supplied analogue input board and optional digital input boards

*High contrast ratio of greater than 1800:1 *Selectable preset gamma curves for accurate colour reproduction

*Multiple screen capability; 4096 x 2160 pixels image in single-mode, two HD 1920 x 1080 pixel images in dual-mode, four HD 1920 x 1080 pixel images in quad-mode *Dual lamp system operated in single and dual-lamp modes *PC-based control of set-up parameters, input configurations, colourimetry control and maintenance settings



Supplied Accessories

LKRI-001 Analogue input board

RM-PJ4K Simple remote controller unit

PC set-up software CD-ROM

Optional Accessories

LKRL-Z115 Projection lens, 1.5 to 1.9 zoom

LKRL-Z120 Projection lens, 1.9 to 2.3 zoom

LKRL-Z125 Projection lens, 2.3 to 4.0 zoom

LKRL-Z140 Projection lens, 4.0 to 7.0 zoom

LKRX-105 Xenon lamp for SRX-R105CE

LKRX-110 Xenon lamp for SRX-R110CE

LKRX-B105 Xenon lamp house for SRX-R105CE

LKRX-B110 Xenon lamp house for SRX-R110CE

LKRA-001 8-inch exhaust duct adaptor

Optional Boards

LKRI-002 SDI and HD-SDI (4:2:2) input board

LKRI-003 Dual-link HD-SDI input board

Specifications

SXRD Device

Display device

SXRD (Silicon X-tal Reflective Display)

Size

1.55" across diagonal

Resolution

4096(V) x 2160(H)

Reflectivity

72%

Contrast ratio (as device)

4000:1

Optical

Projection system

3-SXRD panel, prism colour integrated system

Lamp

2KW Xenon lamp x 2 for SRX-R110CE

1KW Xenon lamp x 2 for SRX-R105CE

Light output

10,000 ANSI lumens \pm 10% for SRX-R110CE

5,000 ANSI lumens \pm 10% for SRX-R105CE

Screen coverage

14 feet to 51 feet/4.5m to 15.5m measured horizontally

General

Contrast ratio (of projector)

>1800:1

Power requirements

AC 200 to 240V 50/60Hz

Power consumption

5.4KW for SRX-R110CE

3KW for SRX-R105CE

Dimensions (W x H x D)

Approx. 740 x 500 x 1320 mm

Mass

Approx. 110 Kg

Input Boards

LKRI-001 Analogue input board

BNC x 5 HD/SD input board

RGB/YCrCb selectable

LKRI-002 SDI and HD-SDI (4:2:2) input board

BNC x 2 (input x 1 and loop through out x 1)

HD-SDI (SMPTE-292M) and SDI (SMPTE-259M)

LKRI-003 Dual-link HD-SDI input board

BNC x 2 (input x 2, loop through out x 2)

HD-SDI single-link 4:2:2 SMPTE-292M

HD-SDI single-link 4:2:2 with 2048 support

Dual-link HD-SDI 4:4:4 RGB SMPTE-372M

Dual-link HD-SDI 4:4:4 RGB with 2048 support

Recording Media

PFD23 Disc	416
HDCAM tape	416
IMX tape	417
Digital Betacam tape	417
Digital Master tape for HDV	418
DVCAM tape	418

PFD23 Disc Professional Disc

Professional optical disc for XDCAM products
PFD23

Features

*Large disc capacity of 23-GB, allowing long recordings of MPEG IMX, DVCAM and HD signals *Uses the state-of-the-art blue laser technology *High transfer rate of 72 Mb/s from a single optical head (144 Mb/s on a dual head deck) *Specially designed, dust and shock-proof cartridge *Highly reliable and durable medium *Can be re-used more than 1000 times

Applicable Models

PDW-1500 XDCAM Compact Deck
(Recording and Playback)
PDW-510 XDCAM Camcorder (DVCAM
Recording)
PDW-510P XDCAM Camcorder (DVCAM
Recording)
PDW-530 XDCAM Camcorder (MPEG
IMX/DVCAM Recording)
PDW-530P XDCAM Camcorder (MPEG
IMX/DVCAM Recording)
PDW-V1 XDCAM Mobile Deck (Playback and
File Recording)
PDW-V1 XDCAM Drive
PDW-R1 XDCAM Field Recorder
(Playback and Recording)

Specifications

Storage capacity:
23.3 GB
Laser wavelength:
405 nm (blue-violet)
Data transfer (writing) rate:
72 Mb/s (per optical head)
Disc diameter:
120 mm (4 5/8 inches)
Cartridge dimensions:
129 (W) x 131 (H) x 9 (D) mm
(5 1/8 x 5 1/4 x 3/8 inches)
Mass:
90 g (3 oz)
Recording format:
Phase change recording



BCT-HD Series HDCAM Tape

Small / Large / Cleaning

The HDCAM format was developed from the Digital Betacam format, and retains the same ease of use. This powerful format meets the requirements of HDTV and SDTV.

Features

*Using Advanced Metal Tape Technology (MP++) *Setting a new standard in high-density recording with ultra-fine magnetic particles *Developed for multi-generation operations (24P, 25P, 30P, and at 50P, 60P interlaced) *Outstanding archive potential using specially developed alumina-silica protective layer *Distinctive HDCAM cassette design with bright orange antistatic lid

Applicable Models

HDW-750P
HDW-730S
HDW-2000/20
HDW-D2000/20
HDW-M2000P/20
HDW-M2100P/20
HDW-S280/1

Specifications

Model Playing time (min.)
BCT-6HD 6
BCT-12HD 12
BCT-22HD2 22
BCT-32HD2 32
BCT-40HD2 40
BCT-34HDL 34
BCT-64HDL 64
BCT-94HDL 94
BCT-124HDL 124
BCT-HD12CL 12



BCT-MX Series IMX Tape

Small / Large / Cleaning

The BCT-MX Series cassettes are intrinsically designed for reliability, durability and to support high-density recording. Using the EBU/SMPTE recommended "open" compression for broadcast compression for broadcast infrastructures at data rates up to 50Mbps, Sony has introduced the MPEG IMX production system.

Features

- *High picture quality (video NET: 50 Mbps)
- *New calendaring system for smoother surface
- *Enhanced binder system improves particle adhesion by 30%
- *Double recording time indication (525i/625i)



Applicable Models	Specifications	
MSW-970P	Model Playing time (min.)	
MSW-M2000P/1	BCT-6MX	7
MSW-A2000P/1	BCT-12MX	14
MSW-2000	BCT-22MX	26
MSW-M2100P/1	BCT-32MX	38
	BCT-60MX	71
	BCT-64MXL	76
	BCT-94MXL	112
	BCT-124MXL	148
	BCT-184MXL	220
	BCT-HD12CL	12

BCT-D Series Digital Betacam Tape

Small / Large / Cleaning

Since its launch in 1994, the Digital Betacam format has set the benchmark in mainstream high-end digital recording.

Features

- *Ultra-fine magnetic particles for high output
- *High-performance binder increases output
- *Specially developed lubricant increases head contact and reduces headwear
- *Designed for long-term playback reliability
- *Low-shrinkage for archival stability



Applicable Models	Specifications	
J-30	Model Playing time (min.)	
J-30/SDI	BCT-D6	6
DVW-970P	BCT-D12	12
DVW-M2000	BCT-D22	22
DVW-M2000P	BCT-D32	32
DVW-2000	BCT-D40	40
DVW-2000P	BCT-D34L	34
	BCT-D64L	64
	BCT-D94L	94
	BCT-D124L	124
	BCT-D12CL	12

PHDVM Model Digital Master Media for HDV

Designed for MiniDV, DVCAM™ or HDV camcorders,
DigitalMaster™ is quite simply the ultimate DV tape.

Features

- *The only Pro DV tape with two active magnetic layers
- *Superior in quality to consumer DV and DVCAM™ tape

Applicable Models

- HVR-Z1E
- HVR-A1E
- HVR-M10E

Specifications

- PHDVM-63DM
- Model Playing time (min.)
 - 63 (HDV/DV Recording)
 - 41 (DVCAM Recording)



PDV-ME / PDV-N DVCAM Tape Mini and Standard

Delivering the superior image quality that DV compression
affords, Sony DVCAM tape is ideal for both high-quality
editing and for low-cost acquisition.

Features

- *New metal evaporation process for improved packing density and increased C/N ratio
- *DLC protective layer for extra durability
- *Up to 184 minutes recording time

Applicable Models

- DSR-400PK
- DSR-400PL
- DSR-450WSPL
- DSR-250P/1
- DSR-PD170P
- DSR-2000AP
- DSR-1800AP
- DSR-1600AP
- DSR-1500AP
- DSR-45P
- DSR-25
- DSR-11
- DSR-50P

Specifications

Model Playing time (min.)	
PDVM-12ME	12
PDVM-22ME	22
PDVM-32ME	32
PDVM-40ME	40
PDV-34ME	34
PDV-64ME	64
PDV-94ME	94
PDV-124ME	124
PDV-184ME	184
PDVM-12N	12
PDVM-22N	22
PDVM-32N	32
PDVM-40N	40
PDV-34N	34
PDV-64N	64
PDV-94N	94
PDV-124N	124
PDV-184N	184



CCA-5 Cables	420
CCA-7 Cables	420
CCDC Cables	420
CCDC-A Cables	421
CCF Cables	421
CCFC-M100 Cable	421
CCFC-M100HG Cable	421
CCFD-L Cable	422
CCF-L Cable	422
CCMC-3MZ Cable	423
CCMC-9DS Cable	423
CCT Cables	423
CCXC-12P Cables	424
CCXC-6P Cable	424
CCXC-9DB Cable	424
CCXC-9DBS Cable	425
CCXC-9DD Cable	425
CCXC-T20 Cables	425
CCZ-A Cables	426
RCC-5AA Cable	426
RCC-G Cable	427
RCC-R Cable	428
VMC-IL44 Cables	428
VMC-IL46 Cables	429
VMC-IL66 Cables	429

CCA-5 Cables 8-pin/8-pin Remote Control Cable

CCA-5-30/1
CCA-5-10
CCA-5-3

Features

*Remote control cable for 700 series control panels

Applicable Models

HDCU-1000/1500 Camera Control Unit
CCU-790P/590P Camera Control Unit
RCP-700/701/750/751 Remote Control Panels
MSU-900/MSU-950 Master Setup Unit

Specifications

CCA-5-10: 10m (33ft)
CCA-5-3: 3m (10ft)
CCA-5-30/1 30m

CCA-7 Cables 10-pin/10-pin Cable

CCA-7-25
CCA-7-5
CCA-7-50

Features

*10-pin (male) / 10-pin (female) *RM-M7G / DXC-D35/300/327B
series *RM-M7G / CCU-M7/M5 *RM-M7G / CA-325A/325B

Applicable Models

RCP-D50 Remote Control Panel (Joystick Type)
RCP-D51 Remote Control Panel (Dial Control Type)

Specifications

CCA-7-5: 5 m (16.5 ft)
CCA-7-25: 25 m (82 ft)
CCA-7-50: 50 m (165 ft)
CCA-7-100: 100 m (330 ft)

CCDC Cables 12-pin/4-pin DC Cables

CCDC-10
CCDC-100
CCDC-25
CCDC-5
CCDC-50

Features

*12-pin (female) <->4-pin (male)
*DXC-390/990 Series <-> CMA-D2

Applicable Models

DXC-390 3-CCD Color Video Camera
DXC-390P 3-CCD Color Video Camera
DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera

Specifications

CCDC-5: 5 m (16.4 ft)
CCDC-10: 10 m (32 ft)
CCDC-25: 25 m (82 ft)



CCDC-A Cables 12-pin/4-pin Cable

CCDC-100A
CCDC-50A

Features

*12-pin (female) / 4-pin (male) *DXC-390 / CMA-D2

Applicable Models

DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera

Specifications

CCDC-50A: 50 m (164 ft)
CCDC-100A: 100 m (330 ft)



CCF Cables Hybrid fibre cables

CCF-100
CCF-200
CCF-300

Features

*Hybrid fibre cables for HDC-1500 camera family

Applicable Models

HDC-1500
HDCU-1000
HDCU-1500

Specifications

CCF-100: 100m
CCF-200: 200m
CCF-300: 300m

CCFC-M100 Cable Optical Fiber Cable

CCFC-M100

Applicable Models

BRC-300 3-CCD Color Video Camera
BRU-300 Optical Multiplex Unit

Specifications

Cable length: Approx. 100 m



CCFC-M100HG Cable HD Optical Fiber Cable

CCFC-M100HG

Applicable Models

BRC-H700 HD 3-CCD Color Video Camera

Specifications

Cable length: Approx. 100 m



CCFD-L Cable DV Cable (6-pin to 4-pin)

CCFD-3L

Features
6-pin to 4-pin

Applicable Models

- | | |
|-----------------------------|----------------------------------|
| DSR-11 Recorder | DSR-DR1000AP Video Disc Recorder |
| DSR-1500AP Editing Recorder | DSR-25 Recorder |
| DSR-1600AP Editing Player | DSR-45AP Recorder |
| DSR-1800AP Editing Recorder | DSR-400PK DVCAM Camcorder |
| DSR-2000AP Editing Recorder | DSR-400PL DVCAM Camcorder |
| DSR-250P/1 DVCAM Camcorder | DSR-450WSPL DVCAM Camcorder |
| DSR-50P Portable Recorder | HVR-Z1E HDV Camcorder |
| | HVR-M10E HDV Recorder |

CCF-L Cable DV Cable (6-pin to 6-pin)

CCF-3L

Features
6-pin to 6-pin

Applicable Models

- DSR-1500AP Editing Recorder
DSR-1600AP Editing Player
DSR-1800AP Editing Recorder
DSR-2000AP Editing Recorder
DSR-250P/1 DVCAM Camcorder
DSR-50P Portable Recorder
DSR-DR1000AP Video Disc Recorder
DSR-400PK DVCAM Camcorder
DSR-400PL DVCAM Camcorder
DSR-450WSPL DVCAM Camcorder



CCMC-3MZ Cable

CCMC-3MZ

Features

For connection of CMA-D3/D3CE, capable of connecting to the CCZ-A2/A5/A10/A25/A50/A100 cables (3 m)

Applicable Models

DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera

CCMC-9DS Cable 9-pin/4BNCs, DIN 4-pin

CCMC-9DS

Features

* 9-pin D-sub (male) <-> BNCs (R/G/B/SYNC, male), DIN 4-pin (Y/C, male)* 5 m (16.4 ft)* For video output from DXC-390/990

Applicable Models

BRC-300 3-CCD Color Video Camera
DXC-390 3-CCD Color Video Camera
DXC-390P 3-CCD Color Video Camera
DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera
DXC-C33 3-CCD Color Video Camera
DXC-C33P 3-CCD Color Video Camera



CCT Cables Triax Cable

CCT-100

CCT-150

CCT-300

CCT-50

Features

*BVP-E30 series to CCU-790P or CCU-590P

*DXC-D50 series to CCU-TX50P

Specifications

CCT-50: 50 m (164 ft)
CCT-100: 100 m (328 ft)
CCT-150: 150 m (492 ft)
CCT-300: 300 m (984 ft)

CCXC-12P Cables 12-pin/12-pin Multi Core Cables

CCXC-12P05N
CCXC-12P10N
CCXC-12P25N

Features

12-pin (male) <> 12-pin (female)

*DXC-390/990 Series <> CMA-D2

Applicable Models

DXC-390 3-CCD Color Video Camera
DXC-390P 3-CCD Color Video Camera
DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera

Specifications

CCXC-12P05N: 5 m (16.4 ft)
CCXC-12P10N: 10 m (33 ft)
CCXC-12P25N: 25 m (82 ft)



CCXC-6P Cable Trigger Cable

CCXC-6P05

Features

Trigger Cables

CCXC-9DB Cable 9-pin/9-pin Cable

CCXC-9DB

Features

RGB Cable, 9-pin male - 5 m

Applicable Models

DXC-C33 3-CCD Color Video Camera
DXC-C33P 3-CCD Color Video Camera

CCXC-9DBS Cable 9-pin/5BNCs Cable

CCXC-9DBS

Features

*9-pin D-sub (male) <—> BNCs (R/G/B/SYNC/VBS)
(male) *5m (16.4 ft) *For video output from
DXC-950/950P/390/390P

Applicable Models

BRC-300 3-CCD Color Video Camera
DXC-390 3-CCD Color Video Camera
DXC-390P 3-CCD Color Video Camera
DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera



CCXC-9DD Cable 9-pin/9-pin Cable

CCXC-9DD

Features

*9-pin D-sub (male) <—> 9-pin D-sub (male) *5m (16.4 ft)
*For video output from DXC-950/950P/390

Applicable Models

DXC-990 3-CCD Color Video Camera
DXC-990P 3-CCD Color Video Camera
DXC-C33 3-CCD Color Video Camera
DXC-C33P 3-CCD Color Video Camera

CCXC-T20 Cables CCU to CHU cables

CCXC-T20P02

CCXC-T20P05

CCXC-T20P10

Specifications

CCXC-T20P02: 2 m
CCXC-T20P05: 5 m
CCXC-T20P10: 10 m

CCZ-A Cables 26-pin/26-pin Cable

CCZ-A10
CCZ-A100
CCZ-A2
CCZ-A25
CCZ-A5
CCZ-A50

Features

- *26-pin (male) <—> 26-pin (female)
- *DXC-D50P/D50WSP series <—> CCU-M50P



Applicable Models

CA-D50 Camera Adaptor
CCU-D50 Camera Control Unit
CCU-D50P Camera Control Unit
DXC-390 3-CCD Color Video Camera
DXC-390P 3-CCD Color Video Camera
DXC-D50PH 3-chip CCD Portable Color Camera
DXC-D50PK 3-chip CCD Portable Color Camera
DXC-D50PL 3-chip CCD Portable Color Camera
DXC-D50WSPL 3-chip CCD Portable Color Camera
DXC-H10 3-CCD Color Video Camera

Specifications

CCZ-A2: 2m (6.5 ft)
CCZ-A5: 5m (16.5 ft)
CCZ-A10: 10m (33 ft)
CCZ-A25: 25m (82 ft)
CCZ-A50: 50m (164 ft)
CCZ-A100: 100m (330 ft)

RCC-5AA Cable 9-pin/15-pin Audio mixer control cable

RCC-5AA

Features

- *9-pin (male) <—> 15-pin (female), 5m (16ft)
- *PVE-500 <—> MXP-290



RCC-G Cable 9-pin/9-pin Cable

RCC-5G

Features

*9-pin (male) <—> 9-pin (male)



Applicable Models

DSR-45AP Recorder
 DSR-1500AP Editing Recorder
 DSR-1600AP Editing Player
 DSR-1800AP Editing Recorder
 DSR-2000AP Editing Recorder
 DSR-DR1000AP Video Disc Recorder
 DVW-2000 Digital Betacam Recorder
 DVW-2000P Digital Betacam Recorder
 DVW-M2000 Digital Betacam Recorder
 DVW-M2000P Digital Betacam Recorder
 HDW-2000 HDCAM VTR
 (all versions including /20)
 HDW-M2000 HDCAM VTR
 (all versions including /20)
 HDW-M2000P HDCAM VTR
 (all versions including /20)
 HDW-D2000 HDCAM VTR
 (all versions including /20)
 HDW-M2100 HDCAM Player
 (all versions including /20)
 HDW-M2100P HDCAM Player
 (all versions including /20)
 MSW-2000 MPEG IMX Recorder
 (all versions including /1)
 MSW-A2000 MPEG IMX Recorder
 (all versions including /1)
 MSW-A2000P MPEG IMX Recorder
 (all versions including /1)
 MSW-M2000 MPEG IMX Recorder
 (all versions including /1)
 MSW-M2000P MPEG IMX Recorder
 (all versions including /1)
 MSW-M2100 MPEG IMX Player
 (all versions including /1)
 MSW-M2100P MPEG IMX Player
 (all versions including /1)
 PC-3000 Signal Interface Switcher
 PDW-1500 XDCAM Compact Deck
 (Recording and Playback)

Specifications

RCC-5G: 5 m (16 ft)

RCC-R Cable Cascade Connection Cable

RCC-5R

Specifications

RCC-5R: 5m (16.4 ft)

VMC-IL44 Cables 4-pin <-> 4-pin i.LINK Cable

VMC-IL4415

VMC-IL4435

Applicable Models

DSR-11 Recorder

DSR-25 Recorder

DSR-45AP Recorder

DSR-PD170P DVCAM Camcorder

HVR-Z1E HDV Camcorder

HVR-A1E HDV Camcorder

HVR-M10E HDV Recorder

Specifications

VMC-IL4415: 1.5 m(5 ft)

VMC-IL4435: 3.5 m(12 ft)



VMC-IL4415

VMC-IL46 Cables 4-pin <-> 6-pin i.LINK Cable

VMC-IL4615
VMC-IL4635



VMC-IL4615

Applicable Models

DSR-11 Recorder
DSR-25 Recorder
DSR-250P/1 DVCAM Camcorder
DSR-45AP Recorder
DSR-50P Portable Recorder
DSR-PD170P DVCAM Camcorder
DXC-C33 3-CCD Color Video Camera
DXC-C33P 3-CCD Color Video Camera
HVR-Z1E HDV Camcorder
HVR-A1E HDV Camcorder
HVR-M10E HDV Recorder
PDW-1500 XDCAM Compact Deck
(Recording and Playback)
PDW-510 XDCAM Camcorder (DVCAM
Recording)
PDW-510P XDCAM Camcorder (DVCAM
Recording)
PDW-530 XDCAM Camcorder (MPEG
IMX/DVCAM Recording)

PDW-530P XDCAM Camcorder (MPEG
IMX/DVCAM Recording)
PDW-V1 XDCAM Mobile Deck (Playback and
File Recording)

Specifications

VMC-IL4615: 1.5 m(5 ft)
VMC-IL4635: 3.5 m(12 ft)

VMC-IL66 Cables 6-pin <-> 6-pin i.LINK Cable

VMC-IL6615
VMC-IL6635



VMC-IL6615

Applicable Models

DSR-250P/1 DVCAM Camcorder
DSR-50P Portable Recorder
DXC-C33 3-CCD Color Video Camera
DXC-C33P 3-CCD Color Video Camera
PDW-1500 XDCAM Compact Deck
(Recording and Playback)
PDW-510 XDCAM Camcorder (DVCAM
Recording)
PDW-510P XDCAM Camcorder (DVCAM
Recording)
PDW-530 XDCAM Camcorder (MPEG
IMX/DVCAM Recording)
PDW-530P XDCAM Camcorder (MPEG
IMX/DVCAM Recording)
PDW-V1 XDCAM Mobile Deck (Playback and
File Recording)

Specifications

VMC-IL6615: 1.5 m(5 ft)
VMC-IL6635: 3.5 m(12 ft)

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